MAYO CLINIC LABORATORIES

Rochester
2026 Test Catalog

Laboratory Reference Edition

Sorted By Test Number

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Definition of Specimen "Minimum Volume"

Defines the amount of specimen required to perform an assay once, including instrument and container dead space. Submitting the minimum specimen volume makes it impossible to repeat the test or perform confirmatory or perform reflex testing. In some situations, a minimum specimen volume may result in a QNS (quantity not sufficient) result, requiring a second specimen to be collected.

PURPOSE

This document provides policy guidance on topics relevant to laboratory testing performed for Mayo Clinic Laboratories (MCL).

MAYO CLINIC LABORATORIES

Mayo Clinic Laboratories is a reference laboratory operating in partnership with Mayo Clinic's Department of Laboratory Medicine and Pathology (DLMP) and other laboratory partners. Mayo Clinic Laboratories specializes in providing esoteric laboratory testing services to customers across the United States and around the world.

POLICY STATEMENTS

For a statement of qualifications for assistance with meeting regulatory and accreditation compliance requirements for the referral laboratory qualification process, refer to Framework for Quality.

TOPICS

Abnormal Results
Animal Specimens
Assessments
Business Continuity and Contingency Planning
Cancellation of Tests
Chain of Custody
Compliance Policies
Confidentiality/Disclosure of Results
Environmental Specimens
Extracted Specimens
Health Insurance Portability Accountability Act (HIPAA) Compliance
Informed Consent Certification
Non-Biologic Specimens
Patient Safety Goals/Specimen Identification Policy
Parallel Testing
Proficiency Testing
Radioactive Specimens
Record Retention
Referral of Tests to Another Laboratory
Reflex Testing
Reportable Disease Notification
Request for Ordering Healthcare Professional Name and Number
Special Handling of Time-Sensitive Specimens
Specimen Rejection
Specimen Volume
Supplies
Test Classification
Test Result Call Backs
Turnaround Time
Unlisted Tests

Abnormal Results

Abnormal results can be defined as one of three different classifications: abnormal, critical, and semi-urgent. A team of laboratory directors and Mayo Clinic physicians determines the critical values for analytical tests. These decision limits are built into the Laboratory Information System (LIS). The call center is notified of possible critical values 24 hours a day, seven days a week by representatives in our performing laboratories. Clients are required to provide contact information to us to facilitate accurate and timely notification of critical values/critical results.

Critical Value/Critical Results

A critical value/critical result is defined as a value/result that represents a pathophysiological state at such variance with normal (expected) values to be life-threatening, unless something is done promptly and for which some corrective action could be taken.

Semi-Urgent Results

A semi-urgent result is defined by MCL as a result or finding that can be unexpected or ambiguous, and does not pose an immediate health threat, but has near-term severe health consequences if not acknowledged and/or treated.

Abnormal Results

Most laboratory tests have established reference values which represent results that are typically seen in a group of healthy individuals. Results outside these reference values may be considered abnormal; however, not all "abnormal" results are considered "critical values" or "semi-urgent results."

Action Taken when Critical Results are Obtained

In addition to the standard results reporting (eg, interface, results available within the ordering application), MCL staff contact the client-provided contact number within 60 minutes following laboratory release of the critical test result(s). If contact is not made within the 60-minute period, continued attempts will be made until the designated party is reached and the result is conveyed.

To complement our standard reporting mechanisms, MCL offers electronic notification of both critical values and semi-urgent results through Message Center, or a customized notification rule can be created. An additional comment may also appear in the final report.

For information regarding the Mayo Clinic Laboratories Critical Values/Semi-Urgent Results List, contact Customer Service at 800-533-1710.

Animal Specimens

Animal specimens are not accepted for laboratory testing.

Assessments

Mayo Clinic Laboratories participates in a wide variety of proficiency testing to ensure the accuracy of test results, including interlaboratory and independent state, national, and international programs. In addition, we participate in external assessments that include, but are not limited to, regulatory inspections and accreditation assessments. Also see Proficiency Testing.

Business Continuity and Contingency Planning

In the event of a local, regional, or national disaster, Mayo Clinic and MCL performing sites have comprehensive contingency plans in place at each location to ensure the impact on laboratory practice is proactively addressed. Test standardization between the performing sites and medical practice locations throughout the country ensure that patient care will not be compromised.

Cancellation of Tests

Cancellations received prior to test setup will be honored at no charge. Requests received following test setup cannot be honored. A report will be issued automatically and charged appropriately.

Chain of Custody

Chain of custody is a documented record of a specimen's disposition that identifies the individuals who collected, handled, and analyzed the associated specimen. This documentation is required when test results may be used in a court of law. MCL has developed packaging and shipping materials that meet legal chain-of-custody requirements. This service is only offered for drug testing.

Compliance Policies

Mayo Clinic Laboratories is committed to compliance with applicable laws and regulations such as the Clinical Laboratory Improvement Amendments (CLIA). Regulatory agencies that oversee our compliance include, but are not limited to, the Centers for Medicare and Medicaid Services (CMS), the US Food and Drug Administration (FDA), and the Department of Transportation (DOT). MCL develops, implements, and maintains policies, processes, and procedures throughout the organization that are designed to meet relevant requirements. We expect that clients utilizing our services will ensure their compliance with patient confidentiality, diagnosis coding, anti-kickback statutes, professional courtesy, CPT-4 coding, CLIA-approved proficiency testing, and other similar regulatory requirements. Also see Health Insurance Portability Accountability Act (HIPAA) Compliance and Reportable Disease Notification.

Confidentiality/Disclosure of Results

Mayo Clinic Laboratories is committed to maintaining confidentiality of patient information. To ensure HIPAA and College of American Pathologists (CAP) compliance for appropriate release of patient results, MCL has adopted the following policies:

Phone Inquiry Policy

One of the following unique identifiers will be required:

- MCL order ID number for specimen;
- Client account number (assigned by MCL) along with patient name;
- Client accession ID number; or
- Identification by individual that he or she is, in fact, "referring healthcare professional" identified on requisition form by MCL client.

Under federal regulation, MCL is authorized to release results to healthcare professionals responsible for the individual patient's care. Patients or patients' personal representatives requesting results can do so via the following link: Contact Us - Mayo Clinic Laboratories.

Environmental Specimens

Environmental specimens are not accepted for laboratory testing.

Extracted Specimens

Extracted nucleic acid will be accepted for clinical testing, provided it is from an acceptable specimen source for the ordered test as listed in the Test Catalog, and if the extraction was performed in a CLIA-certified laboratory, or a laboratory meeting equivalent requirements as determined by CAP or the CMS.

Health Insurance Portability Accountability Act (HIPAA) Compliance

Mayo Clinic Laboratories is fully committed to compliance with all privacy, security, and electronic transaction code requirements of HIPAA. All services provided by MCL that involve joint efforts will be performed in a manner that enables clients to be HIPAA and CAP compliant.

Informed Consent Certification

Submission of an order for any tests contained in the Test Catalog constitutes certification to Mayo Clinic Laboratories by the ordering healthcare professional that: 1) the ordering healthcare professional has obtained "Informed Consent" of subject patient as required by any applicable state or federal laws with respect to each test ordered; and 2) the ordering healthcare professional has obtained from subject patient authorization permitting MCL to report results of each test ordered directly to ordering healthcare professional.

On occasion, a specimen may be forwarded to an outside reference laboratory. The laws of the state where the reference laboratory is located may require written informed consent for certain tests. MCL will request that the ordering healthcare professional pursue and provide such consent. Test results may be delayed or denied if consent is not provided.

Non-Biologic Specimens

Due to the inherent exposure risk of non-biologic specimens, their containers, and the implied relationship to criminal, forensic, and medico-legal cases, MCL does not accept nor refer non-biologic specimen types. Example specimens include unknown solids and liquids in the forms of pills, powder, intravenous fluids, or syringe contents.

Patient Safety Goals/Specimen Identification Policy

The Joint Commission and CAP patient safety goals for improving patient safety through accurate patient identification require the use of two patient identifiers when providing laboratory services. As such, we have developed the following specimen identification policy.

A minimum of two patient-specific identifiers are used to verify the correct patient is matched with the correct specimen and the correct order for testing services. When a specimen is received at MCL, the patient's first and last name, birth date, medical record number, and client accession number are verified by comparing the labels on the specimen tube or container with the electronic order and any paperwork (batch sheet or form) that accompanies the specimen to be tested. When discrepancies are identified, Customer Service will notify the client to verify discrepant information to assure MCL is performing the correct testing for the correct patient. Specimens are considered mislabeled when there is a mismatch between the person-specific identifiers on the specimen and information accompanying the specimen (eg, computer system, requisition form, additional paperwork). When insufficient or inconsistent identification is submitted, MCL will recommend that a new specimen be obtained.

In addition, Anatomic Pathology consultation services require the client pathology report. The pathology report is used to match patient name, patient age and/or birth date, and pathology case number. Since tissue blocks and slides have insufficient space to print the patient name on the block, the pathology report provides MCL another mechanism to confirm the patient identification with the client order and labels on tissue blocks and slides.

Parallel Testing

Parallel testing may be appropriate in some cases to re-establish patient baseline results when converting to a new methodology at Mayo Clinic Laboratories. Contact your Hospital Account Executive (800-533-1710) for further information. Specific planning is required prior to implementation.

Proficiency Testing

Mayo Clinic Laboratories are CAP-accredited, CLIA-licensed laboratories that voluntarily participate in many diverse external and internal proficiency testing programs. It is MCL's expectation that clients utilizing our services will adhere to CLIA requirements for proficiency testing (42 CFR 493.801). This includes a prohibition of discussion about proficiency testing samples or results and sending proficiency testing materials to MCL during the active survey period.

Mayo Clinic Laboratories' proficiency testing includes participation in CMS-approved programs. MCL also performs alternative assessment using independent state, national, and international programs when proficiency testing is not available. Additionally, MCL conducts comparability studies to ensure the accuracy and reliability of patient testing when necessary. We comply with the regulations set forth by the Clinical Laboratory Improvement Amendments (CLIA-88), Occupational Safety and Health Administration (OSHA), or CMS.

Radioactive Specimens

Specimens from patients receiving radioactive tracers or material should be labeled as such. All incoming shipments arriving at MCL are routed through a detection process in receiving to determine if the samples have any levels of radioactivity. If radioactive levels are detected, the samples are handled via an internal process that ensures we do not impact patient care and the safety of our staff. This radioactivity may invalidate the results of radioimmunoassays (RIA).

Record Retention

All test requisitions and patient test results are retained, at a minimum, for the retention period required to comply with and adhere to CAP, CLIA, and New York State (NYS) requirements. A copy of the original report can be reconstructed including reference values, interpretive comments, flags, and footnotes with the source system as the DLMP LIS.

Referral of Tests to Another Laboratory

Mayo Clinic Laboratories forwards tests to other laboratories as a service to its clients. This service should in no way represent an endorsement of such test or referral laboratory, or warrant any specific performance for such test.

Mayo Clinic Laboratories has established collaborative relationships with more than 140 laboratories within the United States. Outside vendors are selected based on certifications, service, turnaround time, methodology, reference values, and price. Laboratory qualifications are reviewed by our internal operations and quality teams. A recommendation is forwarded to our medical director for final consideration. Once selected, each laboratory is monitored to ensure that turnaround time is prompt and certain customer service criteria are met. The referral laboratories must requalify every two years or as their test offerings change.

Reflex Testing

Mayo Clinic Laboratories identifies tests that reflex when medically appropriate. In many cases, MCL also offers these reflex tests as individual tests. Clients should familiarize themselves with the test offerings and decide whether to order a test that includes reflex testing or an individual test and only order test offerings based on medical necessity. Clients who order a test that reflexes can request to receive the Daily Charge Report, which indicates what additional testing has been performed. Clients who wish to receive the Daily Charge Report should contact their Regional Service Representative or Customer Service (800-533-1710).

Reportable Disease Notification

Mayo Clinic Laboratories strives to comply with laboratory reporting requirements for each state health department regarding reportable disease conditions. We report by mail, fax, or electronically, depending upon the specific state health department regulations. Clients shall be responsible for compliance with any state-specific statutes concerning reportable conditions, including, but not limited to, birth defects registries or chromosomal abnormality registries. This may also include providing patient address/demographic information. MCL's reporting does not replace the client or healthcare professional's responsibility to report as per specific state statues.

Request for Ordering Healthcare Professional Name and Number

While providing esoteric reference testing, there are times when we need to contact the ordering healthcare professional directly. The following are 2 examples:

- When necessary for the performance of a test, the ordering healthcare professional's name and phone number are requested as part of "Necessary Information" in the Test Catalog. This information is needed to allow timely consultations or seek clarification of requested services. If this information is not provided at the time of specimen receipt, you will be contacted to obtain the information. By providing this information up front, delays in patient care are avoided.
- In some situations, additional information from the ordering healthcare professional is necessary to clarify or interpret a test result. At that time, MCL will request the ordering healthcare professional's name and phone number so staff can consult with them.

Your rapid assistance in supplying us with the ordering healthcare professional's name and phone number is appreciated when we are required to call. By working together, patients are provided with the highest quality testing services in the shortest possible time.

Special Handling of Time-Sensitive Specimens

Test information, including days tests are performed as well as when the report will be available, is included under each test listing in the Test Catalog on mayocliniclabs.com. Unique circumstances may arise with a patient resulting in an ordering healthcare professional's request that the specimen or results receive special handling. There are several options available. These options can only be initiated by contacting Customer Service (800-533-1710) and providing patient demographic information.

There is a nominal charge associated with any special handling.

- **Expedite:** If you would like us to expedite the specimen to the performing laboratory, you can contact Customer Service and request that your specimen be expedited. Relay the following information: facility name, account number, patient name or MCL accession number, shipping information (eg, courier service, FedEx), date to be sent, and test to be performed. Place specimen in a separate Mayo Clinic Laboratories temperature-appropriate bag. Write "Expedite" in large print on the outside of the bag. Once the shipment is received in our receiving area, we will deliver the specimen to the performing laboratory for the next scheduled analytic run. We will not set up a special run to accommodate an expedite request.
- **STAT:** In rare, preapproved circumstances, STAT testing may be required for patients who need immediate treatment. These cases typically necessitate a special analytic run to turn results around as quickly as possible. To arrange STAT testing, have the pathologist, healthcare professional, or laboratory director call Customer Service. They will be connected with one of our medical/laboratory directors to consult about the patient's case. Once mutually agreed upon that there is a need for a STAT, arrangements will be made to assign resources to run the testing on a STAT basis when the specimen is received.

Specimen Rejection

All tests are unique in their testing requirements. To avoid specimen rejection or delayed turnaround times, check the "Specimen Required" and "Reject Due To" fields within each test. You will be notified of rejected or problem specimens upon receipt.

Review the following conditions prior to submitting a specimen:

- Full 24 hours for timed urine collection
- pH of urine
- Lack of hemolysis/lipemia/icterus
- Specimen type (plasma, serum, whole blood, etc)
- Specimen volume
- Patient information requested
- Proper identification of patient/specimen
- Specimen container (metal-free, separation gel, appropriate preservative, etc)
- Transport medium
- Temperature (ambient, frozen, refrigerated)

Specimen Volume

The "Specimen Required" section of each test includes the preferred volume, and the "Specimen Minimum Volume" is also provided. Preferred volume has been established to optimize testing and allows the laboratory to quickly process specimen containers, present containers to instruments, perform test, and repeat testing if necessary. Many of our testing processes are fully automated; as a result, this volume allows hands-free testing and our quickest turnaround time (TAT). Since patient values are frequently abnormal, repeat testing, dilutions, or other specimen manipulations often are required to obtain a reliable, reportable result. The preferred specimen requirements allow expeditious testing and reporting.

When venipuncture is technically difficult or the patient is at risk of complications from blood loss (eg, pediatric or intensive care patients), smaller volumes may be necessary. "Specimen Minimum Volume" is the amount of sample necessary to provide a clinically relevant result as determined by the testing laboratory.

When patient conditions do not mandate reduced collection volumes, we ask that our clients submit preferred volume to facilitate rapid, cost-effective, reliable test results. Submitting less than preferred volume may negatively impact quality of care by slowing TAT, increasing the hands-on personnel time (and therefore, cost) required to perform test.

Mayo Clinic Laboratories makes every possible effort to successfully test your patient's specimen. If you have concerns about submitting a specimen for testing, contact Customer Service (800-533-1710). Our staff will discuss the test and specimen you have available. While in some cases, specimens are inadequate for desired test, in other cases, testing can be performed using alternative techniques.

Supplies

Supplies for MCL testing, including shipping boxes, specimen vials, special specimen collection containers, etc, are fee inclusive unless indicated otherwise. Supplies can be requested using one of the following methods: Use the online ordering functionality available using the Supplies option in "My Dashboard" on mayocliniclabs.com, or contact Customer Service (800-533-1710).

Test Classifications

Analytical tests offered by MCL are classified according to the FDA labeling of the test kit, or reagents and their usage. Where appropriate, analytical test listings contain a statement regarding these classifications, test development, and performance characteristics.

Test Result Call-Backs

Results will be telephoned to a client when requested by the client (in the ordering application or by a phone call to Customer Service from the client).

Turnaround Time

Mayo Clinic Laboratories' extensive test menu reflects the needs of our own healthcare practice. We are committed to providing the most expedient TAT possible to improve diagnosis and treatment. Laboratory services are considered part of the patient care continuum, wherein the needs of the patient are paramount.

Turnaround time is defined as the time from which the sample is received at MCL to the time when the test result is available. TAT is monitored continuously by each performing laboratory site within the Mayo Clinic DLMP. For the most up-to-date information on TAT for individual tests, visit mayocliniclabs.com or contact Customer Service (800-533-1710).

Unlisted Tests

All available test offerings are not listed in the test catalog. Although we do not usually accept referred tests of a more routine type, special arrangements may be made to provide your laboratory with temporary support during times of special need, such as sustained instrumentation failure. For information about unlisted tests, contact Customer Service (800-533-1710).

GLSF
152

Glucose, Spinal Fluid

Specimen Requirements: Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge to remove any cellular material.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	30 days
	Refrigerated	7 days

CPT Code Information: 82945

A1AF
182

Alpha-1-Antitrypsin, Random, Feces

Specimen Requirements: Supplies: -Stool container, Small (Random), 4 oz (T288) -Stool Collection Kit, Random (T635) Container/Tube: Stool container Specimen Volume: 5 g Collection Instructions: Collect a random fecal specimen.

Specimen Minimum Volume: Homogenized stool: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen (preferred)	14 days
	Ambient	14 days
	Refrigerated	14 days

CPT Code Information: 82103

TPSF
872

Protein, Total, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: Centrifuge specimen to remove any cellular material.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	72 hours
	Frozen	180 days

CPT Code Information: 84157

HCO3
876

Bicarbonate, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tube must be centrifuged within 2 hours of collection. 2. Red-top tube must be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated	24 hours

CPT Code Information: 82374

TIBC
2501

Total Iron Binding Capacity, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see SFEC / Iron and Total Iron Binding Capacity, Serum Patient Preparation: 1. Fasting: 8 hours, preferred but not required 2. For 24 hours before collection, patient should not take iron-containing supplements. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Draw blood before noon (preferred). 2. Within 2 hours of collection, serum gel tubes should be centrifuged. 3. Within 2 hours of collection, red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	365 days

CPT Code Information: 83550

IRON
2502

Iron, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see SFEC / Iron and Total Iron-Binding Capacity, Serum Patient Preparation: 1. Fasting: 8 hours, preferred but not required 2. For 24 hours before collection, patient should not take iron-containing supplements. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Draw blood before noon (preferred). 2. Within 2 hours of collection, serum gel tubes should be centrifuged. 3. Within 2 hours of collection, red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	365 days

CPT Code Information: 83540-Iron

SAT
2503

Percent Saturation (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see SFEC / Iron and Total Iron-Binding Capacity, Serum

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	365 days

SFINC
2762

Cerebrospinal Fluid (CSF) IgG Index, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see SFIG / Cerebrospinal Fluid IgG Index Profile, Serum and Spinal Fluid. Specimen Type: Spinal fluid Container/Tube: Sterile vial Preferred: Collection vial number 2 Specimen Volume: 1 mL Collection Instructions: Label specimen as SFINC.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82042; 82784;

OLIGS
2783

Oligoclonal Banding, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: OLIG / Oligoclonal Banding, Serum and Spinal Fluid MSP3 / Multiple Sclerosis (MS) Cascade, Serum and Spinal Fluid

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 83916

LCMS
3287

Leukemia/Lymphoma Immunophenotyping, Flow Cytometry, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 6 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen as blood. 3. Include 1 to 2 unstained blood smears labeled with 2 unique identifiers. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 1 to 5 mL Collection Instructions: 1. Submission of bilateral specimens is not required. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. 4. Include 1 to 2 unstained bone marrow smears labeled with 2 unique identifiers. Specimen Stability Information: Ambient 4 days/Refrigerated 4

days Note: A fresh (less than 4 days post-collection), unfixed, nonembedded bone marrow core biopsy, bone or bone lesion is acceptable as an equivalent source for bone marrow aspirate for this test only in the event of a dry tap during the bone marrow harvesting procedure. Indicate "dry tap" in performing lab notes or paperwork when submitting this specimen type. Specimen Type: Body fluid Sources: Serous effusions, pleural fluid, pericardial fluid, abdominal (peritoneal) fluid, bronchoalveolar lavage (BAL) Container/Tube: Body fluid container Specimen Volume: 20 mL Collection Instructions: 1. If possible, body fluids other than spinal fluid should be anticoagulated with heparin (1 U/mL of fluid). 2. Label specimen with body fluid type. Specimen Stability Information: Refrigerated 4 days/Ambient 4 days Additional Information: The volume of serous effusions necessary to phenotype lymphocytes or blasts depends upon the cell count in the specimen. Usually, 20 mL of pleural or peritoneal fluid is sufficient. Smaller volumes can be used if there is a high cell count. Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 1 to 1.5 mL Collection Instructions: 1. An original cytospin preparation (preferably unstained) should be included with the spinal fluid specimen so correlative morphologic evaluation can occur. 2. Label specimen as spinal fluid. Specimen Stability Information: Refrigerated 4 days/Ambient 4 days Additional Information: The volume of spinal fluid necessary to phenotype lymphocytes or blasts depends upon the cell count in the specimen. A cell count should be determined and submitted with the specimen. Usually, 1 to 1.5 mL of spinal fluid is sufficient. Smaller volumes can be used if there is a high cell count. If cell count is less than 10 cells/mcL, a larger volume of spinal fluid may be required. When cell counts drop below 5 cells/mcL, the immunophenotypic analysis may not be successful.

Specimen Minimum Volume: Blood: 3 mL; Bone marrow: 0.5mL; Spinal fluid: 1 mL; Fluid from serous effusions: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker x 1; 88185-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each) ; 88187-Flow Cytometry Interpretation, 2 to 8 Markers (if appropriate); 88188-Flow Cytometry Interpretation, 9 to 15 Markers (if appropriate); 88189-Flow Cytometry Interpretation, 16 or More Markers (if appropriate);

OLIGC
3484

Oligoclonal Banding, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information, see: OLIG / Oligoclonal Banding, Serum and Spinal Fluid MSP3 / Multiple Sclerosis (MS) Cascade, Serum and Spinal Fluid

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 83916

FVAG
5184

Fungal Culture, Vaginal

Specimen Requirements: Specimen Type: Swab Source: Vaginal secretions Container/Tube: Culture transport swab (noncharcoal) Collection Instructions: 1. Before collecting specimen, wipe away any excessive amount of secretion and discharge. 2. Obtain secretions from the mucosal membrane of the vaginal vault with a sterile swab. 3. If smear and culture are requested or both a bacterial culture and fungal culture are requested, collect a second swab to maximize test sensitivity.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Ambient	7 days

CPT Code Information: 87102-Fungal culture, vaginal; 87106-Id MALDI-TOF Mass Spec Yeast (if appropriate); 87107-Id MALDI-TOF Mass Spec Fungi (if appropriate); 87107-Fungal identification panel A (if appropriate); 87107-Fungal identification panel B (if appropriate); 87153-D2 fungal sequencing identification (if appropriate); 87153-ITS Fungal Sequencing (if appropriate);

ROC
5194

Rubeola (Measles) Antibodies, IgG and IgM, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 0.25 mL Collection Instructions: Submit specimen from collection vial number 2 (preferred), 3, or 4.

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86765 x 2

PHSP
5566

Prenatal Hepatitis Evaluation, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2.2 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial and ship frozen (preferred).

Specimen Minimum Volume: 1.6 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum SST	Frozen (preferred)	84 days	
	Refrigerated	6 days	

CPT Code Information: 87340; 86803 ; G0472 (if appropriate for government payers); 87522 (if appropriate); 86707 (if appropriate); 87341 (if appropriate); 87350 (if appropriate);

CRAV
6345

Cortisol, Right Adrenal Vein, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top Specimen Volume: 1.5 mL Serum Submission Container/Tube: Plastic vial Collection Instructions: 1. Morning (8 a.m.) and afternoon (4 p.m.) specimens are preferred. 2. Include time of collection. 3. Centrifuge and aliquot serum into a plastic vial. Additional Information: If multiple specimens are collected, send a separate order for each specimen.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82533

CLAV
6346

Cortisol, Left Adrenal Vein, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top Specimen Volume: 1.5 mL Serum Submission Container/Tube: Plastic vial Collection Instructions: 1. Morning (8 a.m.) and afternoon (4 p.m.) specimens are preferred. 2. Include time of collection 3. Centrifuge and aliquot serum into a plastic vial. Additional Information: If multiple specimens are collected, send a separate order for each specimen.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82533

CIVC
6347

Cortisol, Inferior Vena Cava, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top Specimen Volume: 1.5 mL Submission Container/Tube: Plastic vial Collection Instructions: 1. Morning (8 a.m.) and afternoon (4 p.m.) specimens are preferred. 2. Include time of collection. 3. Centrifuge and aliquot serum into a plastic vial. Additional Information: If multiple specimens are collected, send a separate order for each specimen.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82533

ARAV
6348

Aldosterone, Right Adrenal Vein, Serum

Specimen Requirements: Patient Preparation: Spironolactone (Aldactone) should be discontinued for 4 to 6 weeks before specimen collection. The plasma renin activity cannot be interpreted if the patient is being treated with spironolactone. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.8 mL Serum Collection Instructions: 1. See Renin-Aldosterone Studies for detailed instructions. 2. The recommended collection time is 8 a.m., after the patient is active for approximately 2 hours. Try to collect the specimen as close to that time as possible and no later than 10 a.m. 3. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	30 days
	Ambient	4 days

CPT Code Information: 82088

ALAV
6349

Aldosterone, Left Adrenal Vein, Serum

Specimen Requirements: Patient Preparation: Spironolactone (Aldactone) should be discontinued for 4 to 6 weeks before specimen collection. The plasma renin activity cannot be interpreted if the patient is being treated with spironolactone. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.8 mL Serum Collection Instructions: 1. See Renin-Aldosterone Studies for detailed instructions. 2. The recommended collection time is 8 a.m., after the patient is active for approximately 2 hours. Try to collect the specimen as close to that time as possible and no later than 10 a.m. 3. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	30 days
	Ambient	4 days

CPT Code Information: 82088

AIVC
6503

Aldosterone, Inferior Vena Cava, Serum

Specimen Requirements: Patient Preparation: Spironolactone (Aldactone) should be discontinued for 4 to 6 weeks before specimen collection. The plasma renin activity cannot be interpreted if the patient is being treated with spironolactone. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.8 mL Serum Collection Instructions: 1. See Renin-Aldosterone Studies for detailed instructions. 2. The recommended collection time is 8 a.m., after the patient is active for approximately 2 hours. Try to collect the specimen as close to that time as possible and no later than 10 a.m. 3. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	30 days
	Ambient	4 days

CPT Code Information: 82088

JCHAI
7048

J-Chain Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

F8IS
7289

Coagulation Factor VIII Inhibitor Screen, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: 8INHE / Factor VIII Inhibitor Evaluation, Plasma ALUPP / Lupus Anticoagulant Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma APROL / Prolonged Clot Time Profile, Plasma AVWPR / von Willebrand Disease Profile, Plasma For more information see Coagulation Guidelines for Specimen Handling and Processing.

Specimen Minimum Volume: Platelet-poor plasma: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85335

ZN_S
7735

Zinc, Serum

Specimen Requirements: Patient Preparation: High concentrations of gadolinium, iodine, and barium are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium-, iodine-, and barium containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free Specimen Vial (T173) -Metal Free B-D Tube (No Additive), 6 mL (T184) Collection Container/Tube: 6-mL Plain, royal blue-top Vacutainer plastic trace element blood collection tube Submission Container/Tube: 7-mL Mayo metal-free, screw-capped, polypropylene vial Specimen Volume: 0.8 mL serum Collection Instructions: 1. This specimen must always be drawn first. 2. Do not collect specimen from a line. Avoid hemolysis. 3. Allow the specimen to clot for 30 minutes; then centrifuge the specimen to separate serum from the cellular fraction. 4. Within 4 hours of specimen collection, remove serum from cellular fraction. Remove the stopper. Carefully pour specimen into a Mayo metal-free, polypropylene vial, avoiding transfer of the cellular components of blood. Do not insert a pipet into the serum to accomplish transfer, and do not ream the specimen with a wooden stick to assist with serum transfer. 5. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	28 days	METAL FREE
	Ambient	28 days	METAL FREE
	Frozen	28 days	METAL FREE

CPT Code Information: 84630

F9_IS
7802

Factor IX Inhibitor Screen, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: 9INHE / Factor IX Inhibitor Evaluation, Plasma ALUPP / Lupus Anticoagulant Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma APROL / Prolonged Clot Time Profile, Plasma For more information see Coagulation Guidelines for Specimen Handling and Processing.

Specimen Minimum Volume: Platelet poor plasma: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85335

11_IS
7804

Factor XI Inhibitor Screen, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: 11INE / Factor XI Inhibitor Evaluation, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma APROL / Prolonged Clot Time Profile, Plasma For more information see Coagulation Guidelines for Specimen Handling and Processing.

Specimen Minimum Volume: Platelet-poor plasma: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85335

F2_IS 7806 Factor II Inhibitor Screen, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: 2INHE / Factor II Inhibitor Evaluation, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma APROL / Prolonged Clot Time Profile, Plasma For information see Coagulation Guidelines for Specimen Handling and Processing.

Specimen Minimum Volume: Platelet-poor plasma: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85335

F5_IS 7808 Factor V Inhibitor Screen, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: 5INHE / Factor V Inhibitor Evaluation, Plasma ALUPP / Lupus Anticoagulant Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma APROL / Prolonged Clot Time Profile, Plasma For more information see Coagulation Guidelines for Specimen Handling and Processing.

Specimen Minimum Volume: Platelet-poor plasma: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85335

F7_IS 7810 Factor VII Inhibitor Screen, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: 7INHE / Factor VII Inhibitor Evaluation, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma APROL / Prolonged Clot Time Profile, Plasma For more information see Coagulation Guidelines for Specimen Handling and Processing.

Specimen Minimum Volume: Platelet-poor plasma: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85335

10_IS
7812

Factor X Inhibitor Screen, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: 10INE / Factor X Inhibitor Evaluation, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma APROL / Prolonged Clot Time Profile, Plasma For more information see Coagulation Guidelines for Specimen Handling and Processing.

Specimen Minimum Volume: Platelet poor plasma: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85335

HPP
8014

Pancreatic Polypeptide, Plasma

Specimen Requirements: Patient Preparation: 1. Fasting: 8 hours, required 2. The patient should not have recently received radioisotopes, either therapeutically or diagnostically, due to potential assay interference. See Ordering Guidance. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Plasma Collection Instructions: 1. Place specimen on wet ice and keep cold at all times following collection. 2. Centrifuge (refrigerated centrifuge is not required) and aliquot plasma into a plastic vial. Freeze immediately.

Specimen Minimum Volume: Plasma: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	90 days
	Refrigerated	14 days
	Ambient	7 days

CPT Code Information: 83519

OLIG
8017

Oligoclonal Banding, Serum and Spinal Fluid

Specimen Requirements: Both serum and spinal fluid are required. Spinal fluid must be obtained within 7 days of serum collection. Specimen Type: Serum Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. 2. Label specimen as serum. Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 0.5 mL Collection Instructions: Label specimen as spinal fluid.

Specimen Minimum Volume: Serum, Spinal fluid: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days
Serum	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 83916 x 2

PACP
8019

Prostatic Acid Phosphatase, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	180 days

CPT Code Information: 84066

CIFS
8052

Cutaneous Immunofluorescence Antibodies, IgG and IgG4, Serum

Specimen Requirements: Collection Container/Tube: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 88346; 88350; 88350 (if appropriate);

PRA
8060

Renin Activity, Plasma

Specimen Requirements: Patient Preparation: For 4 to 6 weeks before specimen collection, spironolactone (Aldactone) should be discontinued, as plasma renin activity cannot be interpreted if the patient is being treated with spironolactone. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Chilled, lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 0.8 mL Collection Instructions: 1. Draw blood in a chilled syringe from a patient in a seated position; place specimen in a chilled, 3-mL lavender-top (EDTA) tube and mix well. Alternatively, draw blood directly in a chilled, EDTA tube. 2. Immediately place EDTA tube into an ice-water bath until thoroughly cooled. 3. Immediately centrifuge using a refrigerated centrifuge and aliquot plasma into a plastic vial. Note: If a refrigerated centrifuge is unavailable, chill the centrifuge carriers before use. Centrifuge specimen for 5 minutes or less, then promptly aliquot plasma into a plastic vial. 4. Immediately freeze plasma.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	14 days

CPT Code Information: 84244

ZMMLS
8073

Antimicrobial Susceptibility, Aerobic Bacteria, Varies

Specimen Requirements: Preferred: Specimen Type: Bacterial isolate swab Supplies: E-Swab (T853) Infectious Container, Large (T146) Container/Tube: Preferred: E-Swab collection and transport system Acceptable: Flocked swab and 1-mL liquid Amies transport medium in 12 x 80 mm tube Collection Instruction: 1. Perform isolation of bacterial isolate. 2. Utilize the flocked swab to obtain an adequate sample of pure cultured isolate. Do not submit mixed cultures. 3. Place swab into the transport system containing 1-mL liquid Amies transport medium. 4. If needed, break off end of swab and close the transport tube. 5. Place the transport system into the secondary infectious container for shipment. 6. Each isolate must be submitted under a separate order. Note: For the following organisms, submit an agar slant or other appropriate media to ensure viability upon arrival to the laboratory; Neisseria gonorrhoeae, Campylobacter species, Helicobacter pylori, and any other fastidious organism. Acceptable: Specimen Type: Pure culture of organism from source cultured Supplies: Infectious Container, Large (T146) Container/Tube: Agar slant or other appropriate media Collection Instructions: 1. Perform isolation of bacterial isolate. 2. Bacterial organism must be submitted in pure culture, actively growing. Do not submit mixed cultures. 3. Place the agar slant or other appropriate media into the secondary infectious container for shipment. 4. Each isolate must be submitted under a separate order.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 87077-Ident by MALDI-TOF mass spec (if appropriate); 87185-Beta lactamase (if appropriate); 87186-Antimicrobial Susceptibility, Aerobic Bacteria, MIC-per organism for routine battery (if appropriate); 87181-Susceptibility per drug and per organism for drugs not in routine battery (if appropriate); 87150-H pylori + Clarithro Resistance PCR (if appropriate); 87150-mecA PCR (if appropriate);

MNU
8080

Manganese, 24 Hour, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 0.8 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Within 4 hours of completion of 24-hour collection, refrigerate specimen. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 83785

STL
8098

Enteric Pathogens Culture, Feces

Specimen Requirements: Patient Preparation: Patient should not use barium or bismuth for 7 to 10 days before specimen collection. Submit only 1 of the following specimens: Preferred: Specimen Type: Fecal Swab Supplies: Copan Fecal Swab (T995) Container/Tube: Culture transport swab (Dacron or rayon swab with aluminum or plastic shaft with either Stuart or Amies liquid medium) Specimen Volume: Representative portion of fecal specimen Collection Instructions: 1. Remove swab from packaging. 2. Collect a small amount of stool by inserting all the tip of the flocked swab into the stool sample and rotate. 3. Within 2 hours of collection transfer swab into the tube with preservative medium and visually check to ensure MAX fill line is not exceeded. 4. Mix stool specimen against side of tube to evenly disperse. 5. Break swab off into the tube. 6. Place screw cap in tube and tighten. 7. Shake vial until sample homogenous. 8. Place vial in a sealed plastic bag. Specimen Stability Information: Refrigerated 3 days (preferred)/Ambient 2 days Acceptable: Specimen Type: Preserved Feces Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of non-nutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S) Specimen Volume: Representative portion of fecal specimen Collection Instructions: 1. Collect fresh feces and submit 1 gram or 5 mL in container with transport medium. 2. Within 2 hours of collection place feces in preservative. 3. Place vial in a sealed plastic bag. Specimen Stability Information: Ambient 4 days (preferred)/Refrigerated 4 days

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Varies (preferred)	
	Ambient	
	Refrigerated	

CPT Code Information: 87045-Enteric Pathogens Culture, Stool-with isolation and preliminary examination; 87046 x 3-Stool Culture Aerobic Bacteria, each; 87077-Ident by MALDI-TOF mass spec (if appropriate); 87077-Bacteria Identification (if appropriate); 87153-Aerobe Ident by Sequencing (if appropriate); 87077-Additional Identification Procedure (if appropriate); 87147 x 3-Serologic Agglut Method 1 Ident (if appropriate); 87147 x 4-Serologic Agglut Method 3 Ident (if appropriate); 87150 Carbapenem resistance genes (if appropriate);

GBM
8106

Glomerular Basement Membrane Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83516

BRUTA
8112

Brucella Total Antibody Confirmation, Agglutination, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86622

ANIDE
8114

Organism Referred for Identification, Anaerobic Bacteria

Specimen Requirements: Specimen Type: Pure culture of organism from a source not normally colonized by anaerobes Acceptable Sources: Abscesses, percutaneous transtracheal aspirates, sterile body fluids, suprapubic aspirations, or wounds Supplies: -Anaerobic Transport Tube (T588) -Infectious Container, Large (T146) Container/Tube: Preferred: Anaerobic transport tube Acceptable: Thioglycollate broth or any other suitable anaerobic transport system Collection Instructions: 1. Perform isolation of infecting bacteria. 2. Bacterial organism must be submitted in pure culture, actively growing. Do not submit mixed cultures.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87076-Organism ref for ID, anaerobic bact; 87076-Id MALDI-TOF mass spec anaerobe (if appropriate); 87076-Anaerobe Ident (if appropriate); 87153-Anaerobe ident by sequencing (if appropriate); 87077-Identification commercial kit (if appropriate); 87077-Ident by MALDI-TOF mass spec (if appropriate); 87077-Bacteria identification (if appropriate); 87077-Additional identification procedure (if appropriate); 87077-Identification Staphylococcus (if appropriate); 87077-Identification Streptococcus (if appropriate); 87147 x 3-Serologic agglut method 1 ident (if appropriate); 87147-Serologic agglut method 2 ident (if appropriate); 87147 x 4-Serologic agglut method 3 ident (if appropriate); 87147 x 2-6-Serologic Agglut Method 4 Ident (if appropriate); 87153-Aerobe ident by sequencing (if appropriate); 87798-Identification by PCR (if appropriate);

SLEG 8122 Legionella pneumophila (Legionnaires Disease), Antibody, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86713

PGSN 8141 Progesterone, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL

Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection and serum aliquoted into a plastic vial. 2. Red-top tubes should be centrifuged, and serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	180 days
	Refrigerated	72 hours
	Ambient	8 hours

CPT Code Information: 84144

TLB
8149

Thallium, Blood

Specimen Requirements: ***This specimen container cannot be opened or used for any other testing before shipping.*** Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free EDTA 3 mL Tube (T989) -Metal Free B-D Tube (EDTA), 6 mL (T183) Container/Tube: Preferred: Royal blue-top BD Vacutainer with EDTA blood collection tube (3 mL) (BD catalog no. 367777) (T989) Acceptable: Royal blue-top BD Vacutainer Plus with EDTA blood collection tube (6 mL) (BD catalog no. 368381) (T183) Specimen Volume: 1 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions. 2. Send specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83018

VIP
8150

Vasoactive Intestinal Polypeptide, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Plasma Collection Instructions: Centrifuge, aliquot plasma into a plastic vial, and freeze immediately.

Specimen Minimum Volume: Plasma: 0.55 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	90 days

CPT Code Information: 84586

IMMG
8156

Immunoglobulins (IgG, IgA, and IgM), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82784 x 3

IGA
8157

Immunoglobulin A (IgA), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82784

IGM
8158

Immunoglobulin M (IgM), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82784

IGE
8159

Immunoglobulin E (IgE), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For only total IgE: 0.3 mL For total IgE and more than 1 allergen: 0.05 mL x number of allergen-specific tests + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785

IGG 8160 Immunoglobulin G (IgG), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82784

AAT 8161 Alpha-1-Antitrypsin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82103

AFP 8162 Alpha-Fetoprotein (AFP) Tumor Marker, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge

and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days

CPT Code Information: 82105

COM
8167

Complement, Total, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	28 days

CPT Code Information: 86162

C4
8171

Complement C4, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86160

C3
8174

Complement C3, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86160

AMA
8176

Mitochondrial Antibodies (M2), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86381

C1ES
8198

C1 Esterase Inhibitor Antigen, Serum

Specimen Requirements: Patient Preparations: Fasting: 12 hours, preferred but not required. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1.

Immediately after specimen collection, place the tube on wet ice. 2. Centrifuge and aliquot serum into plastic vial. 3. Freeze specimen within 30 minutes.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	28 days
	Refrigerated	28 days
	Ambient	72 hours

CPT Code Information: 83883

LEGI
8204

Legionella Culture, Varies

Specimen Requirements: Specimen Type: Lower respiratory Sources: Bronchoalveolar lavage, bronchial aspirate/brushing/lavage/washing, tracheal/endotracheal secretions/aspirate, sputum Container/Tube: Sterile container Specimen Volume: Entire collection Specimen Type: Fresh tissue or biopsy Sources: Lung, pleura, heart valve, pericardium Container/Tube: Sterile container Specimen Volume: 5 mm(3) Collection Instructions: Aseptically collect a 1 to 2 cm(3) piece of tissue whenever possible Specimen Type: Fluid Sources: Pericardial, pleural, chest, chest tube drainage, thoracentesis, empyema Container/Tube: Sterile container Specimen Volume: 2 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated	48 hours

CPT Code Information: 87081-Legionella culture; 87077-Ident by MALDI-TOF mass spec (if appropriate); 87153-Aerobe ident by sequencing (if appropriate); 87176-Tissue processing (if appropriate);

CTB
8205

Mycobacteria and Nocardia Culture, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Body fluid Container/Tube: Sterile container Specimen Volume: 1.5 mL Specimen Type: Bone marrow Container/Tube: Sterile container, or green top (lithium or sodium heparin) Specimen Volume: Entire collection Specimen Type: Gastric washing Container/Tube: Sterile container Specimen Volume: 10 mL Collection Instructions: Neutralize specimen within 4 hours of collection with 100 mg of sodium

carbonate per 5 to 10 mL of gastric wash. Specimen Type: Respiratory Sources: Bronchoalveolar lavage fluid, bronchial washing, sputum Container/Tube: Sterile container Specimen Volume: 3 mL Collection Instructions: 1. Collect 3 respiratory specimens for acid-fast smears and culture in patients with clinical and chest X-ray findings compatible with tuberculosis. 2. These 3 specimens should be collected at 8 to 24-hour intervals (24 hours when possible) and should include at least 1 first-morning specimen. Specimen Type: Stool Supplies: Stool Collection Kit, Random (T635) Container/Tube: Sterile container Specimen Volume: 5 to 10 g Specimen Type: Tissue Container/Tube: Sterile container Specimen Volume: 5 to 10 mm Collection Instructions: Collect a fresh tissue specimen. Specimen Type: Urine Container/Tube: Sterile container Specimen Volume: 20 to 50 mL Collection Instructions: Collect a random urine specimen. Fresh tissue or body fluid are preferred over a swab specimen. Recovery of mycobacteria from swabs is generally very low yield. Only submit a swab specimen if tissue biopsy or fluid aspiration is not possible. Specimen Type: Swab Supplies: BD E-swab (T853) Sources: Surgically collected wound, tissue, or body fluid Container/Tube: Sterile, screw-capped tube containing Liquid Amies Medium with flocked swab (eg, E-swab) Specimen Volume: Flocked swab in 1 mL of Liquid Amies Medium Collection Instructions: 1. Before collecting specimen, wipe away any excessive amount of secretion and discharge, if appropriate. 2. Obtain secretions or fluid from source with sterile flocked swab. Paranasal sinus collections must use a nasopharyngeal flocked swab. 3. Place flocked swab in sterile, screw-capped tube containing 1 mL of Liquid Amies Medium. 4. If smear and culture are requested or both a bacterial culture and mycobacterial culture are requested, collect a second swab to maximize test sensitivity. Submit each swab in a separate sterile, screw-capped tube with 1 mL of Liquid Amies Medium. Additional Information: Swabs from the following sources are not acceptable: respiratory fluid (eg, sputum), nasal, sinus, outer ear, mouth, throat, or scalp. Surgically collected inner ear swabs are acceptable.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Ambient	7 days

CPT Code Information: 87116-Mycobacterial Culture; 87015-Mycobacteria Culture, Concentration (if appropriate); 87118-Id MALDI-TOF Mass Spec AFB (if appropriate); 87150-Id, Mtb Speciation, PCR (if appropriate); 87153-Mycobacteria Identification by Sequencing (if appropriate); 87176-Tissue Processing (if appropriate); 87150- Id, MTB complex Rapid PCR (if appropriate);

SAFB
8213

Acid-Fast Smear for Mycobacterium, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Body fluid Container/Tube: Sterile container Specimen Volume: 1 mL Collection Information: Saliva is not acceptable. Additional Information: If a mycobacterial culture is also requested, collect 1.5 mL. Specimen Type: Bone marrow Container/Tube: Sterile container or green top (lithium heparin) Specimen Volume: Entire collection Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. Specimen Type: Gastric washing Container/Tube: Sterile container Specimen Volume: 10 mL Collection Instructions: Neutralize specimen within 4 hours of collection with 100 mg of sodium carbonate per 5 to 10 mL of gastric wash. Specimen Type: Respiratory Sources: Bronchoalveolar lavage fluid, bronchial washing, sputum Container/Tube: Sterile

container Specimen Volume: 3 mL Collection Instructions: Collect 3 respiratory specimens for acid-fast smears and culture in patients with clinical and chest X-ray findings compatible with tuberculosis. These 3 specimens should be collected at 8- to 24-hour intervals (24 hours when possible) and should include at least 1 first-morning specimen. Specimen Type: Feces Supplies: Stool Collection Kit, Random (T635) Container/Tube: Sterile container Specimen Volume: 5 to10 g Specimen Type: Tissue Container/Tube: Sterile container Specimen Volume: 5 to10 mm Collection Instructions: Collect a fresh, unfixed tissue specimen. Fixed tissue is not acceptable. Specimen Type: Urine Container/Tube: Sterile container Specimen Volume: 2 mL Collection Instructions: Collect a random urine specimen. Acceptable: Fresh tissue or body fluid are preferred over a swab specimen. Recovery of mycobacteria from swabs is generally very low yield. Only submit a swab specimen if tissue biopsy or fluid aspiration is not possible. Specimen Type: Swab Supplies: BD E-swab (T853) Sources: Surgically collected wound, tissue, or body fluid Container/Tube: Sterile, screw-capped tube containing Liquid Amies Medium with flocked swab (eg, E-swab) Specimen Volume: Flocked swab in 1 mL of Liquid Amies Medium Collection Instructions: 1. Before collecting specimen, wipe away any excessive amount of secretion and discharge, if appropriate. 2. Obtain secretions or fluid from source with sterile flocked swab. Paranasal sinus collections must use a nasopharyngeal flocked swab. 3. Place flocked swab in sterile, screw-capped tube containing 1 mL of Liquid Amies Medium. 4. If smear and culture are requested or both a bacterial culture and mycobacterial culture are requested, collect a second swab to maximize test sensitivity. Submit each swab in a separate sterile, screw-capped tube with 1 mL of Liquid Amies Medium. Additional Information: Swabs from the following sources are not acceptable: respiratory fluid (eg, sputum), nasal, sinus, outer ear, mouth, throat, or scalp. Surgically collected inner ear swabs are acceptable.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Ambient	7 days

CPT Code Information: 87206; 87176-Tissue processing (if appropriate); 87015-Mycobacteria culture, concentration (if appropriate);

ACT
8221

Actinomyces Culture, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	72 hours

CPT Code Information: 87075-Actinomyces culture; ; 87076-Id MALDI-TOF Mass Spec Anaerobe (if appropriate); ; 87153-Anaerobe identification by sequencing (if appropriate); ; 87176-Tissue processing (if appropriate);

FUNID
8223

Culture Referred for Identification, Fungus

Specimen Requirements: Specimen Type: Yeast or filamentous fungus in pure culture Supplies: Infectious Container, Large (T146) Container/Tube: Preferred: Sabouraud dextrose agar slant Acceptable: Inhibitory mold agar slant Specimen Volume: Isolated mold or yeast Collection Instructions: Yeast or filamentous fungus must be in pure culture, actively growing. Do not submit mixed cultures.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87107-Culture, fungi, definitive identification; 87106-Culture, fungi, definitive identification, each organism; yeast (if appropriate); 87106-Id MALDI-TOF Mass Spec Yeast (if appropriate); 87107-Id MALDI-TOF Mass Spec Fungi (if appropriate); 87107-Culture, fungi, definitive identification, each organism; mold (if appropriate); 87107-Fungal identification Panel A (if appropriate); 87107-Fungal identification Panel B (if appropriate); 87153-D2 fungal sequencing Identification (if appropriate); 87153-ITS Fungal Sequencing (if appropriate);

SBL
8237

Blastomyces Antibody Immunodiffusion, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86612

SFZ
8238

Sulfamethoxazole, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (gel tubes/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Serum for a peak level should be collected 60 minutes after dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

PENTS
8239

Pentobarbital, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Draw blood immediately before the next scheduled dose. 2. Within 2 hours of collection centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

SECOS 8243 Secobarbital, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Collect specimen immediately before the next scheduled dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

HBAB 8254 Hepatitis B Virus Surface Antibody, Qualitative/Quantitative, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86706

AMPHU
8257

Amphetamines Confirmation, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test. 3. Submitting less than 1 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: G0480; 80325 (if appropriate for select payers(; 80359 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

HPFH
8270

Hemoglobin F Distribution, Blood (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -HAEV1 / Hemolytic Anemia Evaluation, Blood -HBEL1 / Hemoglobin Electrophoresis Evaluation, Blood -MEV1 / Methemoglobinemia Evaluation, Blood -REVE2 / Erythrocytosis Evaluation, Blood -THEV1 / Thalassemia and Hemoglobinopathy Evaluation, Blood and Serum

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	14 days

CPT Code Information: 88184

CASF
8271

IgG/Albumin Ratio, Spinal Fluid

Specimen Requirements: Specimen Type: Spinal fluid (CSF) Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: 1. Submit CSF from collection vial number 2 (preferred, not required). 2. Label specimen as CSF.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82042; 82784;

SCOC 8295 Coccidioides Antibody, Complement Fixation and Immunodiffusion, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.8 mL Serum Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86635 x 3

HEAG 8311 Hepatitis B Virus e Antigen and Hepatitis B Virus e Antibody, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.8 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86707; 87350;

CHOL
8320

Cholesterol, Total, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days

CPT Code Information: 82465

AMOBS
8325

Amobarbital, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Draw blood immediately before the next scheduled dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

LPS
8328

Lipase, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tube must be centrifuged within 2 hours of collection. 2. Red-top tube must be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 83690

GALT
8333

Galactose-1-Phosphate Uridyltransferase, Blood

Specimen Requirements: Multiple whole blood tests for galactosemia can be performed on 1 specimen. Prioritize order of testing when submitting specimens. For a list of tests that can be ordered together see Galactosemia-Related Test List. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium heparin) or yellow top (ACD) Specimen Volume: 5 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	28 days
	Ambient	14 days

CPT Code Information: 82775

CK
8336

Creatine Kinase (CK), Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	48 hours

CPT Code Information: 82550

ARBI
8338

Acetylcholine Receptor (Muscle AChR) Binding Antibody, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, specimen collection is recommended prior to initiation of immunosuppressant medication. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86041

ALP
8340

Alkaline Phosphatase, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and aliquoted within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	60 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 84075

LD
8344

Lactate Dehydrogenase (LDH), Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Ambient (preferred)	7 days
	Frozen	30 days
	Refrigerated	48 hours

CPT Code Information: 83615

HBC 8347 Hepatitis B Virus Core Total Antibodies, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86704

FET 8350 Iron, Liver Tissue

Specimen Requirements:

Specimen Minimum Volume: Needle biopsy: See Specimen Required; 2 mm x 2 mm (punch): 0.3 mg by dry weight

Transport Temperature:

Specimen Type	Temperature	Time
Liver Tissue	Refrigerated (preferred)	
	Ambient	
	Frozen	

CPT Code Information: 83540

AMS
8352

Amylase, Total, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	30 days
	Ambient	7 days

CPT Code Information: 82150

AST
8360

Aspartate Aminotransferase (AST) (GOT), Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Specimen Volume: 0.5 mL Submission Container/Tube: Plastic vial Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84450

ALT
8362

Alanine Aminotransferase (ALT) (GPT), Serum

Specimen Requirements: Container/Tube: Preferred: Serum gel Acceptable: Red top Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and aliquoted within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 84460

AL
8373

Aluminum, Serum

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free B-D Tube (No Additive), 6 mL (T184) -Metal Free Specimen Vial (T173) Container/Tube: 6-mL Plain, royal blue-top Vacutainer plastic trace element blood collection tube Submission Container/Tube: 7-mL Mayo metal-free, screw-capped, polypropylene vial Specimen Volume: 1.2 mL Serum

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	28 days	METAL FREE
	Ambient	28 days	METAL FREE
	Frozen	28 days	METAL FREE

CPT Code Information: 82108

CYSQN
8376

Cystinuria Profile, Quantitative, 24 Hour, Urine

Specimen Requirements: -Urine Tubes, 10 mL (T068) -Diazolidinyl Urea (Germall) 5.0 mL (T822) Specimen Volume: 5 mL Collection Instructions: 1. Collect before intravenous pyelogram. 2. Add 5 g of diazolidinyl urea (Germall) as preservative at start of collection. If preservative is not available, refrigerate during collection. 3. Collect urine for 24 hours. 4. Mix well before taking 5-mL aliquot. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	70 days
	Refrigerated	14 days

CPT Code Information: 82136

CAI
8378

Calcium, Ionized, Serum

Specimen Requirements: Container/Tube: Serum gel or serum gel microtainer Specimen Volume: Full tube Collection Instructions: 1. Allow blood to clot for 30 minutes. 2. Serum gel tube/microtainer must be centrifuged within 1 hour of collection. Centrifuge with stopper in place for 7 minutes at 3000 rpm to ensure that the gel barrier separates the serum and cells. 3. Keep specimen anaerobic; do not aliquot. 4. Test cannot be combined with other testing. Separate specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: 1.75 mL in a 3.5 mL (50% full) in serum gel tube or 1 full serum gel microtainer

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum SST	Refrigerated	7 days	SERUM GEL TUBE

CPT Code Information: 82330

PKU
8380

Phenylalanine and Tyrosine, Plasma

Specimen Requirements: Patient Preparation: Fasting: 8 hours, required; Infants should have specimen collected before next feeding Collection Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Green top (lithium heparin), lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Centrifuge and aliquot plasma into a plastic vial. 2. Send plasma frozen.

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	14 days
	Refrigerated	14 days

CPT Code Information: 84030 Phenylalanine; 84510 Tyrosine; 82542 (if appropriate for government payers);

LID
8382

Lidocaine, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 80176

PHOS
8408

Phosphorus (Inorganic), Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	365 days
	Refrigerated	7 days

CPT Code Information: 84100

ACTH
8411

Adrenocorticotropic Hormone, Plasma

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: Ice-cooled, lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Morning (7 a.m.-10 a.m.) specimen is desirable. 2. Collect with a pre-chilled lavender top (EDTA) tube and transport to the laboratory on ice. 3. Within 2 hours of collection centrifuge at refrigerated temperature and immediately separate plasma from cells. 4. Immediately freeze plasma.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	28 days
	Refrigerated	3 hours
	Ambient	2 hours

CPT Code Information: 82024

MNS
8413

Manganese, Serum

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free B-D Tube (No Additive), 6 mL (T184) -Metal Free Specimen Vial (T173) Collection Container/Tube: 6 mL Plain, royal blue-top Vacutainer plastic trace element blood collection tube Submission Container/Tube: 7-mL Mayo metal-free, screw-capped, polypropylene vial Specimen Volume: 1.6 mL Serum Collection Instructions: See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	28 days	METAL FREE
	Ambient	28 days	METAL FREE
	Frozen	28 days	METAL FREE

CPT Code Information: 83785

DSS
8421

Drug Screen, Prescription/Over the Counter, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2.75 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 1.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	3 hours

CPT Code Information: 80307

BUTAS
8427

Butalbital, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Draw blood immediately before the next scheduled dose. 2. Within 2 hours of collection centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

HDCH
8429

Cholesterol, High-Density Lipoprotein (HDL), Serum

Specimen Requirements: Patient Preparation: Fasting: 8 hours, preferred but not required unless directed by the ordering provider. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tube must be centrifuged within 2 hours of collection. 2. Red-top tube must be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 83718

ALB
8436

Albumin, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Specimen Volume: 0.5 mL Submission Container/Tube: Plastic vial Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	150 days
	Frozen	120 days

CPT Code Information: 82040

URIC
8440

Uric Acid, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Specimen Volume: 0.5 mL Submission Container/Tube: Plastic vial Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and aliquoted within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	180 days

CPT Code Information: 84550

MGS
8448

Magnesium, Serum

Specimen Requirements: Container/Tube: Preferred: Serum gel Acceptable: Red top Specimen Volume: 0.5 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions. 2. Serum gel tubes should be centrifuged within 2 hours of collection. 3. Red-top tubes should be centrifuged and aliquoted within 2 hours of collection. Additional Information: If other metal tests are also desired when drawing for a serum magnesium level; the specimen must be drawn in a plain, royal blue-top Vacutainer plastic trace element blood collection tube.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	365 days

CPT Code Information: 83735

BILI3
8452

Bilirubin, Serum

Specimen Requirements: Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Amber vial Specimen Volume: 1 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into an amber vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	24 hours	LIGHT PROTECTED
	Frozen	30 days	LIGHT PROTECTED
	Ambient	6 hours	LIGHT PROTECTED

CPT Code Information: 82247-Bilirubin, total; 82248-Bilirubin, direct;

CL
8460

Chloride, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 82435

OPATU
8473

Opiates Confirmation, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test. 3. Submitting less than 1 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: G0480; 80361 (if appropriate for select payers); 80365 (if appropriate for select payers); 80362 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

BGA
8486

Beta-Galactosidase, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) Specimen Volume: 6 mL Collection Instructions: Send specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood ACD	Refrigerated (preferred)	6 days	YELLOW TOP/ACD
	Ambient	6 days	YELLOW TOP/ACD

CPT Code Information: 82657

PBHA
8495

Lead, Hair

Specimen Requirements: Supplies: Hair and Nails Collection Kit (T565) Source: Head (preferred), beard, mustache, chest, pubic Specimen Volume: 0.2 g Collection Instructions: Prepare and transport specimen per the instructions in the kit or see Collecting Hair and Nails for Metals Testing.

Specimen Minimum Volume: 0.05 g

Transport Temperature:

Specimen Type	Temperature	Time
Hair	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 83655

HGHAR
8498

Mercury, Hair

Specimen Requirements: Supplies: Hair and Nails Collection Kit (T565) Source: Head, beard, mustache, chest, pubic Specimen Volume: 0.2 g Collection Instructions: Prepare and transport specimen per the instructions in the kit or see Collecting Hair and Nails for Metals Testing.

Specimen Minimum Volume: 0.05 g

Transport Temperature:

Specimen Type	Temperature	Time
Hair	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 83825

TGRP
8508

Testosterone, Total and Free, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	60 days

CPT Code Information: 84402; 84403;

GAST
8512

Gastrin, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 12 hours, required 2. For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). 3. For 1 week before specimen collection, if medically feasible, patient should not take proton pump inhibitors (omeprazole, lansoprazole, dexlansoprazole, esomeprazole, pantoprazole, and rabeprazole). 4. For at least 2 weeks before specimen collection, patient should not take or receive drugs that interfere with gastrointestinal motility (eg, opioids). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. If multiple specimens are collected, submit each vial under a separate order. 2. Label specimens with corresponding collection time. 3. Within 2 hours of collection, centrifuge at refrigerated temperature. Refrigerated centrifugation is preferred but not required. 4. Immediately aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	24 hours

CPT Code Information: 82941

TP
8520

Protein, Total, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	180 days

CPT Code Information: 84155

CEA
8521

Carcinoembryonic Antigen (CEA), Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For serum gel tubes, serum may sit on gel refrigerated but must be aliquoted within 7 days. 3. For red top tubes, aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days

CPT Code Information: 82378

CATP
8532

Catecholamine Fractionation, Free, Plasma

Specimen Requirements: Patient Preparation: 1. Discontinue drugs that release epinephrine, norepinephrine, or dopamine, or hinder their metabolism, for at least one week before obtaining the specimen (see Cautions for details). If this is not possible for medical reasons, contact the laboratory and

discuss whether a shorter drug withdrawal period may be possible in a particular case. 2. Unless the purpose of the measurement is drug monitoring, discontinue any epinephrine, norepinephrine, or dopamine injections or infusions for at least 12 hours before specimen collection. 3. Patient must not eat, use tobacco, or drink caffeinated beverages for at least 4 hours before the specimen is collected. Supplies: Catecholamine Tubes-EDTA (T066) (contain sodium metabisulfite, may come as 10-mL or 6-mL tubes, and have a 6-month expiration time) Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: 10-mL Catecholamine tubes containing EDTA-sodium metabisulfite solution Acceptable: 6-mL Catecholamine tubes containing EDTA-sodium metabisulfite solution Submission Container/Tube: Plastic vial Specimen Volume: 3 mL plasma Collection Instructions: Note: If the collection instructions are not followed, falsely elevated test results are highly likely. 1. Drawing from an indwelling intravenous (IV) line/catheter/butterfly is required. 2. Calm the patient by giving complete instructions and reassurance regarding the procedure. 3. Insert an indwelling IV catheter. Flush with 3 mL of sodium chloride (NaCl) using positive pressure. 4. Have the patient rest for 30 minutes in the supine position in a quiet room. 5. At the end of the 30 minutes, withdraw and discard a minimum of 2 mL of blood to remove the saline out of the catheter. 6. If provocative sampling (eg, standing specimen) is required, perform provocative maneuver immediately after obtaining supine specimen. Obtain standing specimen immediately. 7. For each specimen, draw 10 mL of blood into the chilled 10 mL catecholamine tube containing EDTA-sodium metabisulfite solution. A 6 mL pink top EDTA-metabisulfite tube is an acceptable substitute. 8. Specimens must remain at refrigerated temperature at all times. 9. Separate plasma in a refrigerated centrifuge within 30 minutes of collection. 10. Freeze specimen immediately. Transport frozen.

Specimen Minimum Volume: Plasma: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA Meta	Frozen	28 days

CPT Code Information: 82384

TTST
8533

Testosterone, Total, Mass Spectrometry, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.215 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	60 days

CPT Code Information: 84403

CORT
8545

Cortisol, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL serum Collection Instructions: 1. Morning (8 a.m.) and afternoon (4 p.m.) specimens are preferred. 2.Within 2 hours of collection, centrifuge the specimen. 3. For red-top tubes aliquot the serum into a plastic vial after centrifugation. Additional Information: 1. Include time of collection. 2. If multiple specimens are collected, send separate order for each specimen.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 82533

CORTU
8546

Cortisol, Free, 24 Hour, Urine

Specimen Requirements: Supplies: Urine Tubes, 10-mL (T068) Submission Container/Tube: Plastic urine tube Specimen Volume: 5 mL Collection Instructions: 1. Add 10 g of boric acid as preservative at the start of the collection. 2. Collect urine for 24 hours and record the total volume. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 82530

ALDU
8556

Aldosterone, 24 Hour, Urine

Specimen Requirements: Patient Preparation: Spironolactone (Aldactone) should be discontinued for 4 to 6 weeks before specimen collection. The plasma renin activity cannot be interpreted if the patient is being treated with spironolactone. Supplies: Urine tubes, 10 mL (T068) Container/Tube: Plastic, urine tube Specimen Volume: 10 mL Collection Instructions: 1. Add 25 mL of 50% acetic acid as preservative at start of collection. Use 15 mL of 50% acetic acid for children under the age of 5 years. This preservative is intended to achieve a pH of between approximately 2 and 4. 2. Collect urine for a full 24 hours (required) and record the total volume. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82088

ALDS
8557

Aldosterone, Serum

Specimen Requirements: Patient Preparation: Spironolactone (Aldactone) should be discontinued for 4 to 6 weeks before testing. The plasma renin activity cannot be interpreted if the patient is being treated with spironolactone. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.2 mL Serum Collection Instructions: 1. See Renin-Aldosterone Studies for detailed instructions. 2. The recommended collection time is 8 a.m., after the patient is active for approximately 2 hours. Try to collect the specimen as close to that time as possible and no later than 10 a.m. 3. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	30 days
	Ambient	4 days

CPT Code Information: 82088

PQNU
8562

Porphyrins, Quantitative, 24 Hour, Urine

Specimen Requirements: Patient Preparation: For the 24 hours before, as well as during, specimen collection, patient must not consume any alcohol. Supplies: -Urine Container - Amber, 60-mL (T596) -Sodium Carbonate, 5 gram (T272) Container/Tube: 60-mL Amber urine container Specimen Volume: 20 to 50 mL Collection Instructions: 1. Add 5 g of sodium carbonate as preservative at start of collection. This preservative is intended to achieve a pH above 7. Do not substitute sodium bicarbonate for sodium carbonate. 2. Collect a 24-hour urine specimen. 3. The container should be refrigerated and protected from light as much as possible during collection. 4. Record volume and duration. 5. Aliquot 20 to 50 mL into an amber container and freeze. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 15 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Urine	Frozen	7 days	LIGHT PROTECTED

CPT Code Information: 84110-Porphobilinogen, quantitative; 84120-Porphyrins, quantitation and fractionation;

ESTS
8575

Estradiol, Rapid, Immunoassay, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Frozen (preferred)	180 days	
	Refrigerated	5 days	
	Ambient	24 hours	

CPT Code Information: 82670

CUU
8590

Copper, 24 Hour, Urine

Specimen Requirements: Patient Preparation: High concentrations of barium are known to interfere with this test. If barium-containing contrast media has been administered, the specimen should not be collected for at least 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container with no metal cap or glued insert Submission Container/Tube: Plastic urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 10 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82525

ZNU
8591

Zinc, 24 Hour, Urine

Specimen Requirements: Patient Preparation: High concentrations of barium are known to interfere with this test. If barium-containing contrast media has been administered, the specimen should not be collected for at least 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container with no metal cap or glued insert Submission Container/Tube: Plastic urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 10 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 84630

HGU
8592

Mercury, 24 Hour, Urine

Specimen Requirements: Patient Preparation: 1. For the 48-hour period prior to the start of collection, as well as during the collection, patient should not eat seafood. 2. High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 83825

CRU
8593

Chromium, 24 Hour, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 0.5 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82495

UPGD
8599

Uroporphyrinogen Decarboxylase, Whole Blood

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient must not consume any alcohol. This is essential as alcohol suppresses enzyme activity for 24 hours after ingestion. Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) or green top (lithium heparin) Specimen Volume: 4 mL; full tube

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	14 days
	Ambient	7 days

CPT Code Information: 82657

PBU
8600

Lead, 24 Hour, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium or iodine containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83655

TLU
8603

Thallium, 24 Hour, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium or iodine containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 10 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. Aliquot 10 mL into a plastic 10-mL urine tube (T068) or a clean, plastic aliquot container with no metal cap or glued insert. 4. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: For multiple collections, see Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83018

CDP
8610

Chlordiazepoxide and Metabolites, Serum

Specimen Requirements: Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Red top (serum get/SST are not acceptable) Submission Container/Tube: Amber vial Specimen Volume: 1 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into an amber vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum Red	Refrigerated (preferred)	28 days	LIGHT PROTECTED
	Ambient	28 days	LIGHT PROTECTED
	Frozen	28 days	LIGHT PROTECTED

CPT Code Information: 80299

T3
8613

T3 (Triiodothyronine), Total, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 84480

HG
8618

Mercury, Blood

Specimen Requirements: ***This specimen container cannot be opened or used for any other testing before shipping.*** Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free EDTA 3 mL Tube (T989) -Metal Free B-D Tube (EDTA), 6 mL (T183) Collection Container/Tube: Preferred: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (BD catalog no. 367777) (T989) Acceptable: Royal blue-top BD Vacutainer Plus with EDTA blood collection tube (6 mL) (BD catalog no. 368381) (T183) Specimen Volume: 1 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83825

NIS
8622

Nickel, Serum

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Metal Free Specimen Vial (T173) Collection Container/Tube: Royal blue-top (metal-free, no additive) Submission Container/Tube: 7-mL Mayo metal-free, screw-capped, vial Specimen Volume: 0.55 mL Serum Collection Instructions: 1. Allow the specimen to clot for 30 minutes; then centrifuge the specimen to separate serum from the cellular fraction. 2. Remove the stopper. Carefully pour specimen into a Mayo metal-free, screw-capped vial, avoiding transfer of the cellular components of blood. Do not insert a pipet into the serum to accomplish transfer, and do not ream the specimen with a wooden stick to assist with serum transfer. 3. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: Serum: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	7 days	METAL FREE
	Ambient	7 days	METAL FREE
	Frozen	7 days	METAL FREE

CPT Code Information: 83885

NIU
8626

Nickel, 24 Hour, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic aliquot container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 0.55 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83885

GALK
8628

Galactokinase, Blood

Specimen Requirements: Multiple whole blood tests for galactosemia can be performed on 1 specimen. Prioritize order of testing when submitting specimens. For a list of tests that can be ordered together see Galactosemia-Related Test List. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium or lithium heparin) or yellow top (ACD) Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	10 days
	Ambient	72 hours

CPT Code Information: 82759

DIA
8629

Diazepam and Metabolites, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

VLTS
8632

Volatile Screen, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	24 hours

CPT Code Information: G0480; 80320 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

TSI
8634

Thyroid-Stimulating Immunoglobulin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	60 days
	Refrigerated	7 days
	Ambient	24 hours

CPT Code Information: 84445

CRS
8638

Chromium, Serum

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free B-D Tube (No Additive), 6 mL (T184) -Metal Free Specimen Vial (T173) Collection Container/Tube: 6 mL Plain, royal blue-top Vacutainer plastic trace element blood collection tube Submission Container/Tube: 7-mL Mayo metal-free, screw-capped, polypropylene vial Specimen Volume: 1.6 mL Serum Collection Instructions: See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	28 days	METAL FREE
	Ambient	28 days	METAL FREE
	Frozen	28 days	METAL FREE

CPT Code Information: 82495

FL
8641

Fluoride, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Green top (sodium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Plasma Collection Instructions: Centrifuge and aliquot plasma into a plastic vial. Glass tubes are not acceptable.

Specimen Minimum Volume: Plasma: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Heparin	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 82735

ASB
8645

Arsenic, Blood

Specimen Requirements: ***This specimen container cannot be opened or used for any other testing before shipping.*** Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free EDTA 3 mL Tube (T989) -Metal Free B-D Tube (EDTA), 6 mL (T183) Container/Tube: Preferred: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (BD catalog no. 367777) (T989) Acceptable: Royal blue-top BD Vacutainer Plus with EDTA blood collection tube (6 mL) (BD catalog no. 368381) (T183) Specimen Volume: 1 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions. 2. Send whole blood specimen in original collection tube. Do not aliquot.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82175

ASHA
8651

Arsenic, Hair

Specimen Requirements: Supplies: Hair and Nails Collection Kit (T565) Source: Head, beard, mustache, chest, pubic Specimen Volume: 0.2 g Collection Instructions: Prepare and transport specimen per the instructions in the kit or see Collecting Hair and Nails for Metals Testing.

Specimen Minimum Volume: 0.05 g

Transport Temperature:

Specimen Type	Temperature	Time
Hair	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 82175

PYR
8657

Pyruvic Acid, Blood

Specimen Requirements: Call 800-533-1710 or 507-266-5700 to order special collection tube. Patient Preparation: Fasting: 4 hours, required Supplies: Perchloric Acid-Pyruvate Tube (T012) Container/Tube: Special collection tube containing 2.5 mL of 6% perchloric acid Specimen Volume: Exactly 1 mL Collection Instructions: 1. Special collection tube must be prechilled prior to collection. 2. Draw enough blood directly into syringe to add exactly 1 mL of blood to the prechilled special collection tube. 3. Taking care to not spill any of the preservative, cautiously remove the cap from the tube. 4. Immediately transfer blood, once drawn, to the prechilled, special collection tube, recap, and shake vigorously to mix. Additional Information: 1. Check expiration date before using. Supplied collection tube expires 14 months after preparation. 2. If perchloric acid (preservative) spills, obtain a new, prechilled tube.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated	15 days	PYRUVATE

CPT Code Information: 84210

THEO
8661

Theophylline, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For serum gel tubes, serum may sit on gel refrigerated or aliquoted into a plastic vial. 3. For red top tubes, aliquot serum immediately into a plastic vial.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80198

INS
8664

Insulin, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 8 hours, required 2. For 12 hours before specimen collection do not take multivitamins or dietary supplements containing biotin (vitamin B7), which is commonly found in hair, skin, and nail supplements and multivitamins. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Avoid hemolysis 2. Label specimens with corresponding collection times. 3. Within 2 hours of collection centrifuge and aliquot serum into a plastic vial. Additional Information: If multiple specimens are drawn, send separate order for each specimen.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	180 days
	Refrigerated	7 days

CPT Code Information: 83525

DIG
8674

Digoxin, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection do not take multivitamins or dietary supplements containing biotin (vitamin B7), which is commonly found in hair, skin, and nail supplements and multivitamins. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Draw blood 6 to 8 hours after the last dose of digoxin. 2. Serum gel tubes should be centrifuged within 2 hours of collection. 3. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	180 days

CPT Code Information: 80162

GGT
8677

Gamma-Glutamyltransferase (GGT), Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 82977

CDU
8678

Cadmium, 24 Hour, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium or iodine containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect urine for 24 hours and record the total volume. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82300

CDB
8682

Cadmium, Blood

Specimen Requirements: ***This specimen container cannot be opened or used for any other testing before shipping.*** Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free EDTA 3 mL Tube (T989) -Metal Free B-D Tube (EDTA), 6 mL (T183) Container/Tube: Preferred: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (BD catalog no. 367777) (T989) Acceptable: Royal blue-top BD Vacutainer Plus with EDTA blood collection tube (6 mL) (BD catalog no. 368381) (T183) Specimen Volume: 1 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions. 2. Send whole blood specimen in original collection tube. Do not aliquot.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82300

PA
8683

Procainamide and N-Acetylprocainamide, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For serum gel tubes, plasma may sit on gel refrigerated or be aliquoted into a plastic vial. 3. For red top tubes, aliquot serum immediately into a plastic vial.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Refrigerated	7 days
	Ambient	24 hours

CPT Code Information: 80192

CUT
8687

Copper, Liver Tissue

Specimen Requirements:

Specimen Minimum Volume: Needle biopsy: See Specimen Required; 2 mm x 2 mm (punch): 0.3 mg by dry weight

Transport Temperature:

Specimen Type	Temperature	Time
Liver Tissue	Refrigerated (preferred)	
	Ambient	
	Frozen	

CPT Code Information: 82525

HGH
8688

Growth Hormone, Serum

Specimen Requirements: Patient Preparation: Fasting: 8 hours, required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Specimen Volume: 0.6 mL Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial. 2. If multiple specimens are collected, submit each vial under a separate order. 3. Label specimens appropriately with the corresponding collection times.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days

CPT Code Information: 83003

T4
8724

T4 (Thyroxine), Total Only, Serum

Specimen Requirements: Patient Preparation: For 4 to 6 weeks before specimen collection, patient should not be taking lipid-lowering medications containing dextrothyroxine. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 84436

FRT4
8725

T4 (Thyroxine), Free, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection do not take

multivitamins or dietary supplements containing biotin (vitamin B7), which is commonly found in hair, skin, and nail supplements and multivitamins. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 84439

PTP
8731

Porphyrins, Total, Plasma

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient must not consume any alcohol. Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Green top (sodium or lithium heparin) Acceptable: Lavender top (EDTA) Submission Container/Tube: Amber vial Specimen Volume: 3 mL Plasma Collection Instructions: Centrifuge specimen and aliquot plasma into an amber vial.

Specimen Minimum Volume: Plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Plasma	Frozen (preferred)	14 days	LIGHT PROTECTED
	Refrigerated	14 days	LIGHT PROTECTED

CPT Code Information: 84311-Porphyrins, total; 82542-Porphyrins, fractionation (if appropriate);

PPFE
8739

Protoporphyrins, Fractionation, Whole Blood

Specimen Requirements: Patient Preparation: Patient must not consume any alcohol for 24 hours before specimen collection. Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA), dark blue top (metal free heparin), royal blue top (metal free EDTA), green top (lithium heparin) Specimen Volume: 4 mL Collection Instructions: Refrigerate specimen as soon as possible.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated	7 days

CPT Code Information: 82542

ETGL
8749

Ethylene Glycol, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: G0480; 80320 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

CAFF
8754

Caffeine, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For serum gel tubes, serum may sit on the gel or be aliquoted into a plastic vial. 3. For red top tubes, aliquot serum into a plastic vial immediately after centrifugation.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	28 days
	Ambient	72 hours
	Refrigerated	72 hours

CPT Code Information: 80155

ETX
8769

Ethosuximide, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For serum gel tubes, serum may sit on the gel or be aliquoted into a plastic vial. 3. For red top tubes, aliquot serum into a plastic vial immediately after centrifugation.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 80168

NAGS
8774

Hexosaminidase A and Total Hexosaminidase, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Frozen (preferred)	30 days	
	Refrigerated	7 days	

CPT Code Information: 83080 x 2

NAGW
8775

Hexosaminidase A and Total Hexosaminidase, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood ACD	Refrigerated (preferred)	6 days	YELLOW TOP/ACD
	Ambient	6 days	YELLOW TOP/ACD

CPT Code Information: 83080 x 2

ARSU
8777

Arylsulfatase A, 24 Hour, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL tube Specimen Volume: 6 mL Collection Instructions: 1. Collect a 24-hour urine specimen. 2. No added preservative. 3. Refrigerate specimen during collection. Additional Information: For multiple collections see Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated	14 days

CPT Code Information: 84311

ARSAW
8779

Arylsulfatase A, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood ACD	Refrigerated (preferred)	6 days	YELLOW TOP/ACD
	Ambient	6 days	YELLOW TOP/ACD

CPT Code Information: 82657

AGAS
8784

Alpha-Galactosidase, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Refrigerated	24 hours

CPT Code Information: 82657

CARN
8802

Carnitine, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA), green top (lithium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Plasma Collection Instructions: Centrifuge and aliquot plasma into a plastic vial

Specimen Minimum Volume: Plasma: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	60 days
	Refrigerated	21 days
	Ambient	7 days

CPT Code Information: 82379

CPR
8804

C-Peptide, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 8 hours, required 2. For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	7 days

CPT Code Information: 84681

FUCW
8814

Alpha-Fucosidase, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) Specimen Volume: 6 mL Collection Instructions: Send specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood ACD	Refrigerated (preferred)	6 days	YELLOW TOP/ACD
	Ambient	6 days	YELLOW TOP/ACD

CPT Code Information: 82657

DHVD
8822

1,25-Dihydroxyvitamin D, Serum

Specimen Requirements: Patient Preparation: Fasting: 4 hours, preferred but not required Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 82652

VLTU
8826

Volatile Screen, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 10 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative is required.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	24 hours

CPT Code Information: G0480; 80320 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

ALU
8828

Aluminum, 24 Hour, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 10 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Within 4 hours of completion of 24-hour collection, refrigerate specimen. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82108

C1Q
8851

Complement C1q, Serum

Specimen Requirements: Patient Preparation: Fasting: 12 hours, preferred but not required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	21 days

CPT Code Information: 86160

FRT4D
8859

T4 (Thyroxine), Free, Dialysis, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2.6 mL Serum Collection Instructions: 1. Collect specimen immediately before next scheduled dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	21 days
	Ambient	7 days

CPT Code Information: 84439

PNP
8866

Platelet Neutralization Procedure, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ALUPP / Lupus Anticoagulant Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma AATHR / Thrombophilia Profile, Plasma and Whole Blood APROL / Prolonged Clot Time Profile, Plasma ADIC / Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma Specimen Stability Information: Frozen 2 years

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	

CPT Code Information: 85597

DLAU
8873

D-Lactate, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic urine tube Specimen Volume: 0.50 mL Collection Instructions: 1. Collect a timed or random urine specimen. 2. No

preservative.

Specimen Minimum Volume: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	90 days
	Ambient	90 days
	Refrigerated	90 days

CPT Code Information: 83605

AFPSF
8876

Alpha-Fetoprotein (AFP), Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Preferred: Vial number 1 Acceptable: Any vial Specimen Volume: 1 mL

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 86316

BHSF
8877

Beta-Human Chorionic Gonadotropin, Quantitative, Spinal Fluid

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 84702

DLAC
8878

D-Lactate, Plasma

Specimen Requirements: Supplies: Sodium Fluoride/Potassium Oxalate Tube, 2 mL (T275) Collection Container/Tube: Preferred: Sodium fluoride/potassium oxalate tube Acceptable: Green top (sodium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL plasma Collection Instructions: Centrifuge and aliquot plasma into a plastic vial. Note: If collecting in sodium heparin tubes, centrifugation must occur within one hour of collection.

Specimen Minimum Volume: Plasma: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma NaFl-KOx	Frozen (preferred)	91 days
	Ambient	91 days
	Refrigerated	91 days

CPT Code Information: 83605

ROTA
8886

Rotavirus Antigen, Feces

Specimen Requirements: Specimen Type: Fresh unpreserved feces Supplies: Stool Collection Kit, Random (T635) Container/Tube: Preferred: Sterile fecal container Acceptable: Swab Specimen Volume: 5 to 10 grams Collection Instructions: Place specimen in a tightly sealed plastic bag.

Specimen Minimum Volume: 1 gram

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen (preferred)	7 days
	Refrigerated	72 hours

CPT Code Information: 87425

THCU
8898

Delta-8 and Delta-9-Carboxy-Tetrahydrocannabinol (THC) Confirmation, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container Tube: Plastic urine container Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information:

1. No specimen substitutions. 2. STAT requests are not accepted for this test.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: G0480; 80349 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

OROT
8905

Orotic Acid, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative needed.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen	90 days

CPT Code Information: 83921

ZW10
8921

Miscellaneous Chemistry Testing, Varies

Specimen Requirements: For specimen requirements, call Mayo Clinic Laboratories at 800-533-1710.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Frozen	30 days

STSH
8939

Thyroid-Stimulating Hormone-Sensitive (s-TSH), Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84443

APGH
9003

Alpha-Subunit Pituitary Tumor Marker, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Minimum Volume: Serum: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Refrigerated	7 days

CPT Code Information: 82397

PALB
9005

Prealbumin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 84134

HBAG
9013

Hepatitis B Virus Surface Antigen, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.9 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 87340; 87341 (if appropriate);

HBIM
9015

Hepatitis B Virus Core IgM Antibody, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel

(red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic tube.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86705

CHSBP
9023

Chronic Hepatitis B Monitoring Profile, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.2 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Transfer serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86707; 87340; 87350; 87341 (if appropriate);

ANA2
9026

Antinuclear Antibodies (ANA), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86038

VDSF
9028

VDRL, Spinal Fluid

Specimen Requirements: Collection Container/Tube: Sterile vial Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Submit specimen collected in vial 2, if possible. If not, note from which vial the aliquot was obtained.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	14 days
	Refrigerated	14 days

CPT Code Information: 86592

ATTF
9030

Antithrombin Activity, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85300

ATTI
9031

Antithrombin Antigen, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85301

VWAG
9051

von Willebrand Factor Antigen, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85246

FACTV
9054

Coagulation Factor V Activity Assay, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85220

F_7
9055

Coagulation Factor VII Activity Assay, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85230

FRAG
9064

Osmotic Fragility, Erythrocytes

Specimen Requirements: Both patient and shipping control whole blood specimens are required. For complete instructions, refer to Specimen Collection and Labeling Instructions for Osmotic Fragility Testing of Erythrocytes. Shipping Control Specimen Specimen Type: Whole blood (non-patient) Container/Tube: Lavender top (EDTA) Specimen Volume: 4 mL Collection Instructions: 1. Collect a shipping control specimen from a healthy person unrelated to the patient at the same time (or within 4 hours) as the patient specimen. Note: The shipping control specimen can be collected from a phlebotomist, volunteer or another heathy patient. 2. Clearly handwrite "CONTROL" on the outermost label of the tube. 3. Immediately refrigerate (or place on cold gel pack/small amount of wet ice) after collection. 4. Send shipping control in the original tube. Do not aliquot. 5. Keep the shipping control and the patient specimens together, either rubber banded or in a bag. Additional Information: 1. The shipping control and patient specimens must be handled identically from the time of collection through receipt in the testing laboratory. 2. If the shipping control is not sent with the patient specimen, test cancellation is likely. 3. The shipping control specimen evaluates whether the patient result has been compromised by handling conditions such as temperature, motion, or other transportation interferences, as temperature and handling extremes can adversely impact the integrity of the specimen. Patient Specimen Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 4 mL Collection Instructions: 1. Collect and label patient specimen. 2. Immediately refrigerate (or place on cold gel pack/small amount of wet ice) specimen after collection. 3. Send whole blood specimen in the original tube. Do not aliquot. 4. Keep the shipping control and the patient specimens together, either rubber banded or in a bag. Additional Information: The shipping control and patient specimens must be handled identically from the time of collection through receipt in the testing laboratory.

Specimen Minimum Volume: Patient whole blood, shipping control: 2 mL each

Transport Temperature:

Specimen Type	Temperature	Time
Control	Refrigerated	72 hours
Whole Blood EDTA	Refrigerated	72 hours

CPT Code Information: 85557

F_9 9065 Coagulation Factor IX Activity Assay, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85250

F_10 9066 Coagulation Factor X Activity Assay, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85260

F_11 9067 Coagulation Factor XI Activity Assay, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85270

FXIII
9068

Factor XIII (13), Screen, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see ALBLD / Bleeding Diathesis Profile, Limited, Plasma.

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85291

F_12
9069

Coagulation Factor XII Activity Assay, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85280

F8A
9070

Coagulation Factor VIII Activity Assay, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85240

PSGN
9079

Plasminogen Activity, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85420

MONOS
9081

Infectious Mononucleosis, Rapid Test, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86308

UNHB
9095

Hemoglobin Stability, Blood (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile or as a reflex. For more information see: -HAEV1 / Hemolytic Anemia Evaluation, Blood -HBEL1 / Hemoglobin Electrophoresis Evaluation,

Blood -THEV1 / Thalassemia and Hemoglobinopathy Evaluation, Blood and Serum -REVE2 / Erythrocytosis Evaluation, Blood -MEV1 / Methemoglobinemia Evaluation, Blood

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	7 days

CPT Code Information: 83068

PLHBB
9096

Plasma Free Hemoglobin, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Plasma Collection Instructions: 1. Within 2 hours of collection, centrifuge and aliquot plasma into a plastic vial. 2. Results could be falsely elevated due to artifactual red blood cell lysis if not centrifuged within 2 hours of collection.

Specimen Minimum Volume: Plasma: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	20 days
	Frozen	30 days
	Ambient	4 days

CPT Code Information: 83051

CBC
9109

Complete Blood Cell Count (CBC) with Differential, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	48 hours
	Ambient	24 hours

CPT Code Information: 85025; 85007 (if appropriate); 85060 (if appropriate);

F_2
9121

Coagulation Factor II Activity Assay, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85210

PCAG
9127

Protein C Antigen, Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	

CPT Code Information: 85302

LYME
9129

Lyme Disease Serology, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Information: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	10 days
	Frozen	30 days

CPT Code Information: 86618; 86617 x 2-Lyme disease confirmation (if appropriate);

B12
9154

Vitamin B12 Assay, Serum

Specimen Requirements: Patient Preparation: This test should not be performed on patients who have received a vitamin B12 injection or radiolabeled vitamin B12 injection within the previous 2 weeks. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For red-top tubes aliquot the serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days

CPT Code Information: 82607

FB12
9156

Vitamin B12 and Folate, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 8 hours, required 2. Do not order on patients who have recently received methotrexate or other folic acid antagonists. Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days

CPT Code Information: 82607-Vitamin B12; 82746-Folate;

CATN
9160

Calcitonin, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. After collection, immediately place specimen on ice. 2. Refrigerate specimen during centrifugation and immediately transfer serum to a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Refrigerated	24 hours
	Ambient	8 hours

CPT Code Information: 82308

HAPT
9168

Haptoglobin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume:1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 83010

SDEX
9180

Sickle Solubility, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD solution B), green top (heparin) Specimen Volume: 1 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	14 days

CPT Code Information: 85660

FOL
9198

Folate, Serum

Specimen Requirements: Patient preparation: 1. Fasting: 8 hours, required 2. Do not order on patients who have recently received methotrexate or other folic acid antagonists. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume:0.6 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For red-top tubes aliquot the serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days

CPT Code Information: 82746

PARID
9202

Parasite Identification, Varies

Specimen Requirements: Specimen Type: Parasitic worms, insects, or mites Container/Tube: Sterile container (10% formalin or 70% alcohol may be added if appropriate specimen type) Specimen Volume: Entire specimen Collection Instructions: 1. For scabies, submit skin scrapings on glass microscope slide. Cover with a clean slide and use a rubber band to hold the 2 slides together (do not tape). Place the slides in a clean, dry container for transport. If no slides are available at time of collection, the dry skin scraping can be submitted in a sterile container and will be placed on slide at time of examination. Skin scraping must be visible with the naked eye to be of a quantity sufficient for testing. 2. Submit whole worms and worm segments in 70% alcohol or formalin. Worms must be clean of stool to be suitable for examination. 3. Submit arthropods (ticks, lice, nits, bed bugs, etc) in a clean, dry container. Do not wrap in tape, gauze, or tissue that might obscure them during examination.

Specimen Minimum Volume: See Specimen Required.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87168-Arthropod (if appropriate); 87169-Parasite (if appropriate); 87210 - Arthropod or Parasite (if appropriate);

PINW
9204

Pinworm Exam, Perianal

Specimen Requirements: Specimen Type: Perianal Container/Tube: Preferred: ParaClick Pinworm Paddle Acceptable: SWUBE disposable paddle or similar method of collection Specimen Volume: Entire specimen Collection Instructions: See Pinworm Collection Instructions

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	10 days
	Refrigerated	10 days

CPT Code Information: 87172

POSV
9205

Post Vasectomy Check, Semen

Specimen Requirements: Patient Preparation: Patient should have 2 to 7 days of sexual abstinence at the time of semen collection for accurate results. Container/Tube: Semen Analysis Kit (T178) Specimen Volume: Total ejaculate

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Semen	Ambient	

CPT Code Information: 89321

AHDV
9209

Hepatitis D Virus (HDV) Total Antibodies with Reflex to HDV RNA Detection and Quantitation, PCR, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	5 days

CPT Code Information: 86692; 87523 if needed;

IDENT
9221

Organism Referred for Identification, Aerobic Bacteria

Specimen Requirements: Preferred: Specimen Type: Bacterial isolate swab Supplies: E-swab (T853) Infectious Container, Large (T146) Container/Tube: Preferred: E-Swab collection and transport system Acceptable: Flocked swab and 1-mL liquid Amies transport medium in 12 x 80 mm tube Collection Instruction: 1. Perform isolation of infecting bacteria. 2. Utilize the flocked swab to obtain an adequate sample of pure cultured isolate. Do not submit mixed cultures. 3. Place swab into the transport system containing 1-mL liquid Amies transport medium. 4. If needed, break off end of swab and close the transport tube. 5. Place the transport system into the secondary infectious container for shipment. 6. Each isolate must be submitted under a separate order. Note: For the following organisms, submit an agar slant or other appropriate media to ensure viability upon arrival to the laboratory; Neisseria gonorrhoeae,

Campylobacter sp., Helicobacter pylori and any other fastidious organism. Acceptable: Specimen Type: Pure culture of organism from source cultured Supplies: Infectious Container, Large (T146) Container/Tube: Agar slant or other appropriate media Collection Instructions: 1. Perform isolation of infecting bacteria. 2. Bacterial organism must be submitted in pure culture, actively growing. Do not submit mixed cultures. 3. Place the agar slant or other appropriate media into the secondary infectious container for shipment. 4. Each isolate must be submitted under a separate order.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87077-Organism Referred for Identification, Aerobic Bacteria; 87077-Identification Commercial Kit (if appropriate); 87077-Ident by MALDI-TOF mass spec (if appropriate); 87077-Bacteria Identification (if appropriate); 87153-Aerobe Ident by Sequencing (if appropriate); 87077-Additional Identification Procedure (if appropriate); 87147 x 3-Serologic Agglut Method 1 Ident (if appropriate); 87147-Serologic Agglut Method 2 Ident (if appropriate); 87147 x 4-Serologic Agglut Method 3 Ident (if appropriate); 87147 x 2-6 - Serologic Agglut Method 4 Ident (if appropriate); 87077-Identification Staphylococcus (if appropriate); 87077-Identification Streptococcus (if appropriate); 87798-Identification by PCR (if appropriate);

OHPG
9231

17-Hydroxyprogesterone, Serum

Specimen Requirements: Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 83498

FIL
9232

Filaria, Blood

Specimen Requirements: Container/Tube: Light-blue top (3.2% sodium citrate) Specimen Volume: 2.7 mL Collection Instructions: Certain microfilariae have a nocturnal or diurnal periodicity, therefore the blood collection should be timed to correspond with the release of microfilariae in the peripheral circulation. For the agents of lymphatic filariasis (Wuchereria bancrofti and the Brugia species), blood should be collected between 10 p.m. and 2 a.m., whereas for detection of Loa loa, blood should be collected between 10 a.m. and 2 p.m.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood Na Cit	Ambient (preferred)	72 hours
	Refrigerated	72 hours

CPT Code Information: 87015; 87210;

B2M
9234

Beta-2-Microglobulin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82232

MAL
9240

Rapid Malaria/Babesia Smear, Varies

Specimen Requirements: Both blood and slides are required. Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 1 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Type: Blood films Slides: 2 Thin blood films and 2 thick blood films Container/Tube: Plastic slide container Collection Instructions: 1. For complete instructions, see Thick and Thin Blood Slide Preparation Instructions. 2. Slides must be clean and grease-free. 3. Blood films should be made from fresh blood

using fingerstick or drops of blood from needle following venipuncture. However, EDTA anticoagulated blood is also acceptable. 4. Prepare thin blood films as follows: a. Prepare 2 thin smears with a slide prep machine. OR b. Prepare a thin film with a "feathered edge" that is no more than a single cell thick. c. Allow the film to thoroughly air dry and then fix by briefly immersing in either absolute or 95% methyl alcohol. d. Allow to air dry after fixation. 5. Prepare thick blood films as follows: a. Place a large drop of blood (approximately the size of a dime and preferably from a fingerstick) on a slide. b. Using a corner of a second slide spread the drop in a circular motion while applying firm pressure to literally scratch the blood onto the carrier slide. This technique allows the blood to dry quickly and adhere well to the slide. Use approximately 20 circular sweeps with the second slide. The drop of blood should be about the size of a quarter when finished. c. Do not fix. Air dry thoroughly (approximately 45 minutes) before placing in transport container.

Specimen Minimum Volume: Blood: 0.5 mL Slides: See Specimen Required.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 87207

FLEC
9243

Flecainide, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Draw blood immediately before next scheduled dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80181

MEX
9245

Mexiletine, Serum

Specimen Requirements: Patient Preparation: Specimens should only be collected after patient has been receiving mexiletine for at least 3 days. Trough concentrations should be collected just before administration of the next dose. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Draw blood immediately before next scheduled dose. 2. Within 2 hours of collection centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

AMIO
9247

Amiodarone, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Draw blood no sooner than 12 hours (trough value) after last dose or immediately before next scheduled dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	24 hours

CPT Code Information: 80151

HIAA
9248

5-Hydroxyindoleacetic Acid, 24 Hour, Urine

Specimen Requirements: Patient Preparation: 1. Some medications could interfere with test results. If medically feasible, for 48 hours before specimen collection, patient should not take the following medications: -Acetaminophen (Tylenol or generic versions) -Tryptophan containing

supplements 2. For 48 hours prior to, as well as during, the urine collection, the patient should limit the following to one serving per day: -Fruits -Vegetables -Nuts -Caffeinated beverages or foods Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Add 25 mL of 50% acetic acid as preservative at start of collection. Use 15 mL of 50% acetic acid for children younger than 5 years. 2. Collect a 24-hour urine specimen. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	56 days
	Frozen	365 days

CPT Code Information: 83497

BHYD
9251

Beta-Hydroxybutyrate, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 82010

HVA
9253

Homovanillic Acid, 24 Hour, Urine

Specimen Requirements: Patient Preparation: Administration of L-dopa may falsely increase homovanillic acid results. For 24 hours prior to and during specimen collection, the patient should not take L-dopa. Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Add 25 mL of 50% acetic acid as preservative at start of collection. Use 15 mL of 50% acetic acid for children younger than 5 years. If specimen is refrigerated

during collection, preservative may be added up to 12 hours after collection. This preservative is intended to achieve a pH of between approximately 1 and 5. 2. Collect a 24-hour urine specimen. 3. If necessary, adjust urine pH to a level between 1 and 5 by adding 50% acetic acid or hydrochloric acid dropwise and checking the pH. Additional Information: 1. The sensitivity of this test is greater on a 24-hour specimen than on a random specimen. 2. See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	180 days

CPT Code Information: 83150

VH
9254

Vanillylmandelic Acid and Homovanillic Acid, Random, Urine

Specimen Requirements: Patient Preparation: Administration of L-dopa may falsely increase homovanillic acid and vanillylmandelic acid results. For 24 hours prior to specimen collection, the patient should not take L-dopa. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. Adjust the urine pH to a level between 1 and 5 by adding 50% acetic acid or hydrochloric acid dropwise and checking the pH.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	180 days

CPT Code Information: 83150-HVA; 84585-VMA;

CHOU
9255

Carbohydrate, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Collect an early-morning (preferred) random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen	42 days

CPT Code Information: 84379

IGGS
9259

IgG Subclasses, Serum

Specimen Requirements: Patient Preparation: Fasting: 12 hours, preferred but not required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 82784; 82787 x 4;

TBGI
9263

Thyroxine-Binding Globulin (TBG), Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 84442

AAQP
9265

Amino Acids, Quantitative, Plasma

Specimen Requirements: Patient Preparation: Fasting: 4 hours, required; infants should have specimen collected before next feeding (2-3 hours without total parenteral nutrition if possible) Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Green top (sodium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL plasma Collection Instructions: 1. Collect specimen and place on wet ice. Note: Thrombin-activated tubes should not be used for collection. 2. Centrifuge immediately or within 4 hours of collection if the specimen is kept at refrigerated temperature. 3. Being careful to ensure that no buffy coat is transferred, aliquot plasma into a plastic vial and freeze.

Specimen Minimum Volume: Plasma: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	14 days

CPT Code Information: 82139

C5AG
9266

C5 Complement, Antigen, Serum

Specimen Requirements: Patient Preparation: Fasting: 12 hours, preferred but not required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	60 days
	Refrigerated	28 days
	Ambient	7 days

CPT Code Information: 86160

A2M
9270

Alpha-2-Macroglobulin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 83883

IGD
9272

Immunoglobulin D (IgD), Serum

Specimen Requirements: Patient Preparation: Fasting: 8 hours, preferred but not required Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	21 days

CPT Code Information: 82784

CATU
9276

Catecholamine Fractionation, Free, 24 Hour, Urine

Specimen Requirements: Patient Preparation: 1. If medically feasible, discontinue drugs that

release or hinder metabolism of epinephrine, norepinephrine, or dopamine for at least 1 week prior to specimen collection (see Cautions for details). If this is not possible for medical reasons, contact the laboratory to discuss whether a shorter drug-withdrawal period may be acceptable. 2. Unless the reason for testing is drug monitoring, the patient should stop any epinephrine, norepinephrine, or dopamine injections or infusions for at least 12 hours prior to specimen collection. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container: Plastic vial Specimen Volume: 2 mL Collection Instructions: 1. Add 25 mL of 50% acetic acid as preservative at start of collection. Use 15 mL of 50% acetic acid for children younger than 5 years. This preservative is intended to achieve a pH of between approximately 2 and 4. 2. Collect urine for 24 hours. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 82384

CMA
9278

Centromere Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83516

PSA
9284

Prostate-Specific Antigen (PSA) Diagnostic, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL serum Collection Instructions: 1. For serum gel tubes, centrifuge within 2

hours of collection. 2. For red top tubes, centrifuge and aliquot serum into a plastic vial within 2 hours of collection. Additional Information: Free prostate-specific antigen (PSA) can only be added on within 72 hours of performing total PSA. Specimen must have been shipped frozen.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	180 days
	Refrigerated	5 days

CPT Code Information: 84153

COKEU 9286 Cocaine and Metabolite Confirmation, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Plastic urine container Submission Container/Tube: 10-mL urine tube Specimen Volume: 10 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: G0480; 80353 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

ACHE_ 9287 Acetylcholinesterase, Amniotic Fluid

Specimen Requirements: Container/Tube: Amniotic fluid container Specimen Volume: 1 mL Collection Instructions: Specimen must be collected between 14 to 21 weeks gestation; 14 to 18 weeks is preferred.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Amniotic Fld	Refrigerated (preferred)	365 days	
	Frozen	365 days	
	Ambient	14 days	

CPT Code Information: 82013

CA19
9288

Carbohydrate Antigen 19-9 (CA 19-9), Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: 1. Within 2 hours of collection, serum gel tubes should be centrifuged. 2. Within 2 hours of collection, red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days
	Ambient	8 hours

CPT Code Information: 86301

CA25
9289

Cancer Antigen 125 (CA 125), Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	5 days
	Frozen	168 days

CPT Code Information: 86304

PBLI
9302

Plasma Cell Assessment, Blood

Specimen Requirements: Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) Specimen Volume: 10 mL Collection Instructions: 1. Do not centrifuge. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	72 hours
	Refrigerated	72 hours

CPT Code Information: 88184-Flow cytometry, cell surface, cytoplasmic; 88185 x 5-Each additional marker; 88187-Flow cytometry, interpretation; 2 to 8 markers;

IFBA
9335

Intrinsic Factor Blocking Antibody, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 8 hours, required 2. This test should not be performed on patients who have received a vitamin B12 injection or radiolabeled vitamin B12 injection within the previous 2 weeks. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86340

TBBS 9336 Quantitative Lymphocyte Subsets: T, B, and Natural Killer (NK) Cells, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimen collection be performed at the same time of day.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	52 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86355; 86357; 86359; 86360;

CFX 9339 Protein C Activity, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85303

GLP 9358 Glucagon, Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.45 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	90 days

CPT Code Information: 82943

EMA
9360

Endomysial Antibodies, IgA, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 86231; 86231-titer (if appropriate);

CINP
9369

Cortisol, Mass Spectrometry, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Specimen Volume: 0.6 mL Serum Submission Container/Tube: Plastic vial Collection Instructions: 1. Morning (8 a.m.) and afternoon (4 p.m.) specimens are preferred. 2. Include time of collection. 3. Centrifuge and aliquot serum into a plastic vial. Additional Information: If multiple specimens are collected, send a separate order for each specimen.

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82533

RT3
9405

T3 (Triiodothyronine), Reverse, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.8 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 84482

ANCA
9441

Cytoplasmic Neutrophil Antibodies, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.8 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86036 x2; 86037-Titer (if appropriate);

VMA
9454

Vanillylmandelic Acid, 24 Hour, Urine

Specimen Requirements: Patient Preparation: Administration of L-dopa may falsely increase vanillylmandelic acid results. For 24 hours prior to specimen collection, the patient should not take L-dopa. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Add 25 mL of 50% acetic acid as preservative at the start of collection. Use 15 mL of 50% acetic acid for children younger than 5 years. If specimen is refrigerated during collection, preservative

may be added up to 12 hours after collection. This preservative is intended to achieve a pH of between approximately 1 and 5. 2. Collect a 24-hour urine specimen. 3. If necessary, adjust urine pH to a level between 1 and 5 by adding 50% acetic acid or hydrochloric acid dropwise and checking the pH. Additional Information: For multiple collections see Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	180 days

CPT Code Information: 84585

LYWB 9535 Lyme Disease Antibody, Immunoblot, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.75 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days

CPT Code Information: 86617 x 2

HTLVI 9539 Human T-Cell Lymphotropic Virus Types I and II Antibody Screen with Confirmation, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	28 days
	Refrigerated	7 days

CPT Code Information: 86790; 86689 (if appropriate);

UIOD
9549

Iodine, 24 Hour, Urine

Specimen Requirements: Patient Preparation: 1. High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. 2. If this test is used in conjunction with the (131)I uptake test, then specimen collection should begin immediately after the dose of (131)I is given (ie, the patient should void and discard urine just prior to the (131)I dose, and all subsequent urine should be collected for the next 24 hours). The last void should be included in the collection. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic aliquot container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 10 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83789

LY27B
9648

HLA-B27, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Ambient	4 days

CPT Code Information: 86812

SASP
9678

Aspergillus fumigatus, IgG Antibodies, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86001

ANST
9709

Androstenedione, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 82157

CRP
9731

C-Reactive Protein (CRP), Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tube should be centrifuged within 2 hours of collection. 2. Red-top tube should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	365 days
	Ambient	14 days

CPT Code Information: 86140

HIPA
9756

Hippuric Acid, Urine

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Specimen Type: Urine Container/Tube: Plastic preservative-free urine container Specimen Volume: 2 mL Collection Instructions: 1. Collect 2 mL random urine specimen in a plastic preservative-free urine container at end of shift. 2. Send refrigerate. NOTE: The acidification of the urine with 1.0 mL acetic acid per 100 mL urine will prolong the stability of the analyte.

Specimen Minimum Volume: 1.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Frozen	30 days
	Ambient	5 days

CPT Code Information: 82570 ; 83921; 81002 (if appropriate);

SES
9765

Selenium, Serum

Specimen Requirements: Patient Preparation: High concentrations of gadolinium, iodine, and barium are known to potentially interfere with most inductively coupled plasma mass spectrometry-based

metal tests. If either gadolinium-, iodine-, and barium containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free Specimen Vial (T173) -Metal Free B-D Tube (No Additive), 6 mL (T184) Collection Container/Tube: 6-mL Plain, royal blue-top Vacutainer plastic trace element blood collection tube Submission Container/Tube: 7-mL Metal-free, screw-capped, polypropylene vial Specimen Volume: 0.8 mL serum Collection Instructions: 1. Allow the specimen to clot for 30 minutes; then centrifuge the specimen to separate serum from the cellular fraction. 2. Remove the stopper. Carefully pour specimen into a metal-free, polypropylene vial, avoid transferring the cellular components of blood. Do not insert a pipette into the serum to accomplish transfer, and do not ream the specimen with a wooden stick to assist with serum transfer. 3. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	28 days	METAL FREE
	Ambient	28 days	METAL FREE
	Frozen	28 days	METAL FREE

CPT Code Information: 84255

PNZN
9789

Perphenazine, Serum or Plasma

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Plasma Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Green-top (sodium heparin) (Plasma gel/PST are not acceptable) Submission Container/Tube: Amber plastic vial Specimen Volume: 3 mL Collection Instructions: 1. Draw blood in a green-top (sodium heparin) tube. 2. Centrifuge and aliquot 3 mL plasma into an amber vial to protect from light and refrigerate immediately. 3. Ship refrigerated. Specimen Type: Serum Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Amber Plastic vial Specimen Volume: 3 mL Collection Instructions: 1. Draw blood in a plain red-top tube. 2. Centrifuge and aliquot 3 mL of serum into an amber vial to protect from light and refrigerate immediately. 3. Ship refrigerated.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	7 days	LIGHT PROTECTED
	Frozen	180 days	LIGHT PROTECTED
	Ambient	72 hours	LIGHT PROTECTED

CPT Code Information: 80299

PROTR 9797 Protriptyline (Vivactyl)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80335

AFPA 9950 Alpha-Fetoprotein, Amniotic Fluid

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plain, plastic, screw-top tube Specimen Volume: 0.75 mL Collection Instructions: Do not centrifuge.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Amniotic Fld	Refrigerated (preferred)	7 days	
	Ambient	7 days	

CPT Code Information: 82106; 82013 (if appropriate);

ALDNA 15150 Aldosterone with Sodium, 24 Hour, Urine

Specimen Requirements: Patient Preparation: Spironolactone (Aldactone) should be discontinued for 4 to 6 weeks before testing. The plasma renin activity cannot be interpreted if the patient is being treated with spironolactone. Supplies: Sarstedt Aliquot Tube 5mL (T914) Container/Tube: 2 Plastic, 5-mL tubes Specimen Volume: 10 mL Collection Instructions: 1. Add 25 mL of 50% acetic acid as preservative

at start of collection. Use 15 mL of 50% acetic acid for children under the age of 5 years. This preservative is intended to achieve a pH of between approximately 2 and 4. 2. Collect urine for a full 24 hours (required) and record the total volume. 3. Place 5 mL of well mixed, 24-hour urine in plastic, 5-mL tube and label as Aldosterone. 4. Place 5 mL of well mixed, 24-hour urine in plastic, 5-mL tube and label as Sodium. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	7 days

CPT Code Information: 82088-Aldosterone; 84300-Sodium;

LLPT 19499 Leukemia/Lymphoma Immunophenotyping, Flow Cytometry, Tissue

Specimen Requirements: Submit 1 of the following specimens: Preferred Specimen Type: Tissue Supplies: Hank's Solution (T132) Container/Tube: Sterile container with 15 mL of tissue culture medium (eg, Hank's balanced salt solution, RPMI, or equivalent) Specimen Volume: 5 mm(3) or larger biopsy Collection Instructions: 1. Place tissue into a sterile container with 15 mL of tissue culture medium (eg, Hank's balanced salt solution, RPMI, or equivalent). 2. Send intact specimen (do not mince) 3. Specimen cannot be fixed. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days Acceptable Specimen Type: Fine needle aspirate (FNA) Supplies: Hank's Solution (T132) Container/Tube: Sterile container with 15 mL of tissue culture medium (eg, Hank's balanced salt solution, RPMI, or equivalent) Specimen Volume: Entire collection Collection Instructions: 1. Collect FNA and transfer entire collection into a sterile container with 15 mL of tissue culture medium (eg, Hank's balanced salt solution, RPMI, or equivalent). 2. Send intact specimen (do not mince) 3. Specimen cannot be fixed. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days

Specimen Minimum Volume: 1 mm(3)

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker x

1; 88185-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each); 88187-Flow Cytometry Interpretation, 2 to 8 Markers (if appropriate); 88188-Flow Cytometry Interpretation, 9 to 15 Markers (if appropriate); 88189-Flow Cytometry Interpretation, 16 or More Markers (if appropriate);

FLT
19739

FLT3 Mutation Analysis, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collections Instructions: 1. Invert several times to mix blood. 2. Send specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Stability Information: Ambient (preferred) 7 days/Refrigerate 7 days Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 2 mL Collections Instructions: 1. Invert several times to mix bone marrow. 2. Send specimens in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 7 days/Refrigerate 7 days Specimen Type: Extracted DNA from whole blood or bone marrow Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted from blood or bone marrow within 7 days of collection 2. Label specimen as extracted DNA and source of specimen 2. Provide volume and concentration of DNA on the label. Specimen Stability Information: Frozen (preferred)/Refrigerate/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood, Bone marrow: 1 mL; Extracted DNA: 50 mcL at 20 ng/mcL concentration

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	7 days

CPT Code Information: 81245-FLT3 (fms-related tyrosine kinase) (eg, acute myeloid leukemia), gene analysis, internal tandem duplication (ITD) variants (ie, exons 14, 15); 81246-FLT3 (fms-related tyrosine kinase 3) (eg, acute myeloid leukemia), gene analysis; tyrosine kinase domain (TKD) variants (eg, D835, I836);

SCT2
20521

Miscellaneous Biochemical Genetics Testing

Specimen Requirements: Only orderable as part of the miscellaneous test process.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CRMWC 21747 Collapsin Response-Mediator Protein-5-IgG, Western Blot, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 3 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 84182

A1APP 26953 Alpha-1-Antitrypsin Phenotype, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.25 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82103; 82104;

CD4NY
28334

CD4 Count for Monitoring, New York, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimen collection be performed at the same time of day.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86359-T cells, total count; 86360-Absolute CD4/CD8 count with ratio;

MOBRD
28339

Mail Out Research, Blood

Transport Temperature:

Specimen Type	Temperature	Time
Varies		

PTH2
28379

Parathyroid Hormone, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 12 hours, preferred but not required 2. For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	180 days
	Refrigerated	72 hours
	Ambient	8 hours

CPT Code Information: 83970

ADULT
29345

Adulterants Survey, Random, Urine

Specimen Requirements: Container/Tube: Plastic, 60-mL urine bottle Specimen Volume: 1.5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: Submitting less than 1.5 mL may compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information:

FMBNY
30320

Fetomaternal Bleed, New York, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Fill evacuated tube as completely as possible. 2. Do not centrifuge. 3. Invert several times to mix blood. 4. Send specimen in original tube. Do not aliquot as aliquoting into or out of a sample tube can adversely affect test results.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Refrigerated (preferred)	5 days	
	Ambient	5 days	

CPT Code Information: 88184-Flow cytometry; cell surface cytoplasmic

HMNA
31070

Heavy Metals, Nails

Specimen Requirements: Supplies: Hair and Nails Collection Kit (T565) Source: Fingernails or toenails Specimen Volume: 0.2 g Collection Instructions: 1. Prepare and transport specimen per the instructions in the kit or see Collecting Hair and Nails for Metals Testing. 2. Clippings should be taken

from all 10 fingernails or toenails.

Specimen Minimum Volume: 0.05 g

Transport Temperature:

Specimen Type	Temperature	Time
Nail	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 82175; 83655; 83825;

TCGBM
31139

T-Cell Receptor Gene Rearrangement, PCR, Bone Marrow

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81340-TCB (T cell antigen receptor, beta) (eg, leukemia and lymphoma), gene rearrangement analysis to detect abnormal clonal population(s); using amplification methodology (eg, PCR); 81342-TCG (T cell receptor, gamma) (eg, leukemia and lymphoma), gene rearrangement analysis, evaluation to detect abnormal clonal population(s);

TCGRV
31140

T-Cell Receptor Gene Rearrangement, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Paraffin-embedded tissue Container/Tube: Paraffin block Collection Instructions: 1. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. 2. Indicate specimen source. 3. Include pathology report. Specimen Stability Information: Ambient Additional Information: If the quality of the biopsy specimen is poor, testing should not be ordered. Testing may be canceled if DNA requirements are inadequate. Acceptable: Specimen Type: Tissue slide Slides: 20 Unstained slides Container/Tube: Transport in plastic slide holders Collection Instructions: 1. Send 20 unstained, nonbaked slides with 5-micron thick sections of tissue. 2. Decalcified specimens (eg, bone marrow core biopsies) are not

acceptable. 3. Indicate specimen source. 4. Include pathology report. Specimen Stability Information: Ambient Additional Information: Testing may be canceled if resultant extracted DNA does not meet concentration requirements. Specimen Type: Body fluid Sources: Pleural, peritoneal, vitreous and spinal fluid Container/Tube: Sterile container Specimen Volume: At least 5 mL Collection Instructions: 1. If the volume is greater than 5 mL, pellet cells and then store and send refrigerated. 2. Specify the type of fluid being submitted. Specimen Stability Information: Refrigerate (preferred)/Ambient 4 days Specimen Type: Frozen tissue Container/Tube: Plastic container Specimen Volume: 100 mg Collection Instructions: 1. Freeze tissue within 1 hour of collection. 2. Indicate specimen source. Specimen Stability Information: Frozen Specimen Type: Extracted DNA Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of DNA on label. Specimen Stability Information: Frozen (preferred)/Refrigerated/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Body fluid: 1 mL; Frozen tissue: 50 mg; Extracted DNA: 50 microliters (mcL) at 20 ng/mcL; Tissue slides: 10 unstained slides

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81340-TCB (T cell antigen receptor, beta) (eg, leukemia and lymphoma), gene rearrangement analysis to detect abnormal clonal population(s), using amplification methodology (eg, PCR); 81342-TCG (T cell receptor, gamma) (eg, leukemia and lymphoma), gene rearrangement analysis, evaluation to detect abnormal clonal population(s);

BCGBM
31141

Immunoglobulin Gene Rearrangement, PCR, Bone Marrow

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81261-IGH (Immunoglobulin heavy chain locus) (eg, leukemias and lymphomas B-cell), gene rearrangement analysis to detect abnormal clonal populations; amplified methodology (eg. polymerase chain reaction); 81264-IGK (Immunoglobulin kappa light chain locus) (eg, leukemia and lymphoma, B-cell) gene rearrangement analysis, evaluation to detect abnormal clonal populations;

BCGRV
31142

Immunoglobulin Gene Rearrangement, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Paraffin-embedded tissue Container/Tube: Paraffin block Collection Instructions: 1. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. 2. Indicate specimen source. 3. Include pathology report. Specimen Stability Information: Ambient Additional Information: If the quality of the biopsy specimen is poor, testing should not be ordered. Testing may be canceled if DNA requirements are inadequate. Acceptable: Specimen Type: Tissue slide Slides: 20 unstained slides Container/ Tube: Transport in plastic slide holders. Collection Instructions: 1. Send 20 unstained, nonbaked slides with 5-micron thick sections of tissue. 2. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. 3. Indicate specimen source. 4. Include pathology report. Specimen Stability Information: Ambient Additional Information: Testing may be canceled if resultant extracted DNA does not meet concentration requirements. Specimen Type: Body fluid Sources: Pleural, peritoneal, vitreous, and spinal fluid (CSF) Container/Tube: Sterile container Specimen Volume: At least 5 mL Collection Instructions: 1. If the volume is greater than 5 mL, pellet cells and then store and send refrigerated. 2. Specify the type of fluid being submitted. Specimen Stability Information: Refrigerate (preferred)/Ambient 4 days Specimen Type: Frozen tissue Container/Tube: Plastic container Specimen Volume: 100 mg Collection Instructions: 1. Freeze tissue within 1 hour of collection. 2. Indicate specimen source. Specimen Stability Information: Frozen Specimen Type: Extracted DNA Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted within 7 days after collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of DNA. Specimen Stability Information: Frozen (preferred)/Refrigerated/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Body Fluid: 1 mL; Frozen tissue: 50 mg; Extracted DNA: 50 microliters (mcL) at 20 ng/mcL; Tissue slides: 10 unstained slides

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81261-IGH (Immunoglobulin heavy chain locus) (eg, leukemias and lymphomas B-cell), gene rearrangement analysis to detect abnormal clonal populations; amplified methodology (eg. polymerase chain reaction); 81264-IGK (Immunoglobulin kappa light chain locus) (eg, leukemia and lymphoma, B-cell) gene rearrangement analysis, evaluation to detect abnormal clonal populations;

JAK2M
31155

JAK2 V617F Mutation Detection, Bone Marrow

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Bone Marrow	Ambient (preferred)	7 days	PURPLE OR PINK TOP/EDTA
	Refrigerated	7 days	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81270-JAK2 (Janus kinase 2) (eg, myeloproliferative disorder) gene analysis, p.Val617Phe (V617F) variant

JAK2V
31156

JAK2 V617F Mutation Detection, Varies

Specimen Requirements: Specimen Type: Extracted DNA from blood or bone marrow Container/Tube: 1.5- to 2-mL tube with indication of volume and concentration of the DNA Specimen Volume: Entire specimen Collection Instructions: Label specimen as extracted DNA from blood or bone marrow and indicate volume and concentration of the DNA. Specimen Stability Information: Refrigerated/Ambient

Specimen Minimum Volume: 50 microliter at a concentration of 20 ng/microliter

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81270-JAK2 (Janus kinase 2) (eg, myeloproliferative disorder) gene analysis, p.Val617Phe (V617F) variant

INSEC
31765

Stinging Insects Allergen Profile, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.8 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003 x 5

SEAS
31766

Seasonal Inhalants Allergen Profile, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003 x 10

NEREG
31767

Northeast Regional Allergen Profile, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003 x 10

DAGR
31768

Dairy and Grain Allergen Profile, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003 x 5

NSIP
31769

Non-Seasonal Inhalant Allergen Profile, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003 x 10

SEAFP
31770

Seafood Allergen Profile, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003 x 5

NUTSP
31771

Nuts Allergen Profile, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003 x 5

PPFWE
31891

Protoporphyrins, Fractionation, Washed Erythrocytes

Specimen Requirements:

Specimen Minimum Volume: Washed and resuspended erythrocytes: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Washed RBC	Frozen (preferred)	14 days
	Refrigerated	14 days

CPT Code Information: 82542

UPGDW
31892

Uroporphyrinogen Decarboxylase, Washed Erythrocytes

Specimen Requirements:

Specimen Minimum Volume: Washed and resuspended erythrocytes: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Washed RBC	Frozen (preferred)	14 days
	Refrigerated	14 days
	Ambient	4 days

CPT Code Information: 82657

PEWE
31893

Porphyrins Evaluation, Washed Erythrocytes

Specimen Requirements:

Specimen Minimum Volume: Washed and resuspended erythrocytes: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Washed RBC	Frozen (preferred)	14 days
	Refrigerated	14 days

CPT Code Information: 84311-Spectrophotometry, analyte not elsewhere specified; 82542-Chromatography (if appropriate);

PBGDW
31894

Porphobilinogen Deaminase, Washed Erythrocytes

Specimen Requirements:

Specimen Minimum Volume: Washed and resuspended erythrocytes: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Washed RBC	Frozen (preferred)	14 days
	Refrigerated	14 days
	Ambient	48 hours

CPT Code Information: 82657

ALADW
31895

Aminolevulinic Acid Dehydratase, Washed Erythrocytes

Specimen Requirements:

Specimen Minimum Volume: Washed and resuspended erythrocytes: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Washed RBC	Frozen (preferred)	7 days
	Refrigerated	14 days
	Ambient	4 days

CPT Code Information: 82657

MMAP
31927

Methylmalonic Acid, Quantitative, Plasma

Specimen Requirements: Collection Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL plasma Collection Instructions: Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Refrigerated (preferred)	48 days
	Ambient	48 days
	Frozen	48 days

CPT Code Information: 83921

CORAB
32111

Hepatitis B Virus Core Total Antibodies, with Reflex to Hepatitis B Virus Core IgM Antibody, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86704; 86705 (if appropriate);

C2FXN
32137

C2 Complement, Functional, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	21 days

CPT Code Information: 86161

TRYPA
32283

Tryptase, Autopsy, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial. Additional Information: Tryptase degenerates very quickly when left in the presence of red blood cells.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Refrigerated	7 days

CPT Code Information: 83520

LLTOF
34488

Leukemia and Lymphoma Phenotyping, Technical Only, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 10 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen as blood. 3. Include 1 to 2 unstained blood smears labeled with 2 unique identifiers. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 1 to 5 mL Collection Instructions: 1. Submission of bilateral specimens is not required. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. 4. Include 1 to 2 unstained bone marrow smears labeled with 2 unique identifiers. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days Note: A fresh (less than 4 days post-collection), unfixed, nonembedded bone marrow core biopsy, bone or bone lesion is acceptable as an equivalent source for bone marrow aspirate for this test only in the event of a dry tap during the bone marrow harvesting procedure. Indicate "dry tap" in performing lab notes or paperwork when submitting this specimen type. Specimen Type: Body fluid Sources: Serous effusions, pleural, pericardial, or abdominal (peritoneal fluid) Container/Tube: Body fluid container Specimen Volume: 20 mL Collection Instructions: 1. If possible, body fluids other than spinal fluid should be anticoagulated with heparin (1 U/mL of fluid). 2. Label specimen with body fluid type. Additional Information: The volume of serous effusion necessary to phenotype lymphocytes or blasts depends upon the cell count in the specimen. Usually, 20 mL of pleural or peritoneal fluid is sufficient.

Smaller volumes can be used if there is a high cell count. Specimen Stability Information: Refrigerated 4 days/Ambient 4 days Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 1 to 1.5 mL Collection Instructions: 1. An original cytospin preparation (preferably unstained) should be included with the spinal fluid specimen so correlative morphologic evaluation can occur. 2. Label specimen as spinal fluid. Specimen Stability Information: Refrigerated /Ambient 4 days Additional Information: The volume of spinal fluid necessary to phenotype the lymphocytes or blasts depends upon the cell count in the specimen. A cell count should be determined and submitted with the specimen. Usually, 1 to 1.5 mL of spinal fluid is sufficient. Smaller volumes can be used if there is a high cell count. If the cell count is less than 10 cells/mcL, a larger volume of spinal fluid may be required. When cell counts drop below 5 cells/mcL, the immunophenotypic analysis may not be successful.

Specimen Minimum Volume: Whole blood: 3 mL; Bone marrow: 0.5 mL; Spinal fluid: 1 mL; Fluid from serous effusions: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker; 88185-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each); Additional CPTs may be added if consultative help is needed with the case, or algorithm dictates Mayo consultant involvement.; 88187-Flow cytometry interpretation, 2 to 8 markers (if appropriate); 88188-Flow cytometry interpretation, 9 to 15 markers (if appropriate); 88189-Flow cytometry interpretation, 16 or more markers (if appropriate);

TB2LN
34550

Susceptibility, Mycobacterium tuberculosis Complex, Second Line, Varies

Specimen Requirements: Specimen Type: Organism Supplies: Infectious Container, Large (T146) Container/Tube: Middlebrook 7H10 agar slant Specimen Volume: Isolate Collection Instructions: Organism must be in pure culture, actively growing.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87186-Susceptibility, Mtb Cx, 2nd Line

TRSF
34623

Transferrin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For serum gel tubes, aliquot serum into a plastic vial prior to shipment. 3. For red-top tubes, aliquot the serum into a plastic vial immediately after centrifuging.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	7 days

CPT Code Information: 84466

CGAK
34641

Chromogranin A, Serum

Specimen Requirements: Patient Preparation: For at least 2 weeks before specimen collection, patient should stop taking proton pump inhibitor medications. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Information: Centrifuge and aliquot serum into plastic vial. Do not submit in original tube.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Ambient	48 hours
	Refrigerated	48 hours

CPT Code Information: 86316

MCRPL
34643

Macroprolactin, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection do not take

multivitamins or dietary supplements containing biotin (vitamin B7), which is commonly found in hair, skin, and nail supplements and multivitamins. Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days
	Ambient	24 hours

CPT Code Information: 84146 x 2

MMLSG 34805 Antimicrobial Susceptibility, Acid-Fast Bacilli, Slowly Growing, Varies

Specimen Requirements: Specimen Type: Organism Supplies: Infectious Container, Large (T146) Container/Tube: Middlebrook 7H10 agar slant or other appropriate media Specimen Volume: Isolate Collection Instructions: Organism must be in pure culture, actively growing.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87186

HLLFH 34854 Hematologic Disorders, Leukemia/Lymphoma; Flow Hold, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or Green top (sodium heparin) Specimen Volume: 10 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen as blood. 3. Include 1 to 2 unstained blood smears labeled with 2 unique identifiers. Specimen Stability Information: Ambient 4 days/Refrigerated 4

days Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 1 to 5 mL Collection Instructions: 1. Submission of bilateral specimens is not required. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. 4. Include 1 to 2 unstained bone marrow smears labeled with 2 unique identifiers. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days Note: A fresh (less than 4 days post-collection), unfixed, nonembedded bone marrow core biopsy, bone or bone lesion is acceptable as an equivalent source for bone marrow aspirate for this test only in the event of a dry tap during the bone marrow harvesting procedure. Indicate "dry tap" in performing lab notes or paperwork when submitting this specimen type. Specimen Type: Fluid Sources: Serous effusions, pleural, pericardial, or abdominal (peritoneal fluid) Container/Tube: Body fluid container Specimen Volume: 20 mL Collection Instructions: 1. If possible, fluids should be anticoagulated with heparin (1 U/mL of fluid). 2. Label specimen with fluid type. Specimen Stability Information: Refrigerated 4 days/Ambient 4 days Additional Information: The volume of fluid necessary to phenotype the lymphocytes or blasts in serous effusions depends upon the cell count in the specimen. Usually, 20 mL of pleural or peritoneal fluid is sufficient. Smaller volumes can be used if there is a high cell count. Specimen Type: Tissue Supplies: Hank's Solution (T132) Container/Tube: Sterile container with 15 mL of tissue culture medium (eg, Hank's balanced salt solution, RPMI, or equivalent) Specimen Volume: 5 mm(3) or larger biopsy Collection Instructions: 1. Send intact specimen (do not mince) 2. Specimen cannot be fixed. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 1 to 1.5 mL Collection Instructions: 1. An original cytospin preparation (preferably unstained) should be included with the spinal fluid specimen so correlative morphologic evaluation can occur. 2. Label specimen as spinal fluid. Specimen Stability Information: Refrigerated 4 days/Ambient 4 days Additional Information: The volume of spinal fluid necessary to phenotype the lymphocytes or blasts depends upon the cell count in the specimen. A cell count should be determined and submitted with the specimen. Usually, 1 to 1.5 mL of spinal fluid is sufficient. Smaller volumes can be used if there is a high cell count. If cell count is less than 10 cells/mcL, a larger volume of spinal fluid may be required. When cell counts drop below 5 cells/mcL, the immunophenotypic analysis may not be successful.

Specimen Minimum Volume: Blood: 3 mL Bone Marrow: 0.5 mL Fluid: 5 mL Tissue: 1 mm(3) or larger biopsy

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker; 88185-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each); 88187-Flow Cytometry Interpretation, 2 to 8 Markers (if appropriate); 88188-Flow Cytometry Interpretation, 9 to 15 Markers (if appropriate); 88189-Flow Cytometry Interpretation, 16 or More Markers (if appropriate);

RBPG
34938

Rubella Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Instructions: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86762

ROPG
34941

Measles (Rubeola) Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Instructions: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86765

VZPG
34944

Varicella-Zoster Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86787

MPPG
34947

Mumps Virus Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86735

PLPMA
35090

Prolactin, Pituitary Macroadenoma, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days
	Ambient	24 hours

CPT Code Information: 84146

NH3V
35130

Ammonia, Plasma

Specimen Requirements:

Specimen Minimum Volume: See Specimen Collection

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	7 days
	Refrigerated	2 hours

CPT Code Information: 82140

CYSPR
35143

Cyclosporine, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Collect specimen immediately before a scheduled dose. 2. Do not centrifuge. 3. Send whole blood specimen in original tube. Do not aliquot. Additional Information: Therapeutic range applies to trough specimens collected immediately prior to a.m. dose.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 80158

SIIRO
35144

Sirolimus, Whole Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Draw blood immediately before a scheduled dose. 2. Do not centrifuge. 3. Send whole blood specimen in original tube. Do not aliquot. Additional Information: Therapeutic range applies to trough specimen collected immediately prior to a.m. dose.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80195

TAKRO
35145

Tacrolimus, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Draw blood immediately before a scheduled dose. 2. Do not centrifuge. 3. Send whole blood specimen in original tube. Do not aliquot. Additional Information: Therapeutic range applies to trough specimens collected immediately prior to a.m. dose.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 80197

EVROL
35146

Everolimus, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Draw blood immediately before a scheduled dose. 2. Do not centrifuge. 3. Send whole blood specimen in original tube. Do not aliquot. Additional Information: Therapeutic range applies to trough specimens collected immediately prior to a.m. dose.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 80169

STFRP
35148

Shiga Toxin, Molecular Detection, PCR, Feces

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by shiga toxin DNA is unlikely. Submit only 1 of the following specimens: Preferred: Specimen Type: Preserved feces Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of nonnutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S) Specimen Volume: Representative portion of feces; 5 mL Collection Instructions: 1. Collect fresh fecal specimen and submit in container with transport medium. 2. Within 2 hours of collection, place feces in preservative. Specimen Stability Information: Ambient (preferred) 7 days/Refrigerated 7 days Acceptable: Specimen Type: Unpreserved feces Supplies: -Stool container, Small (Random), 4 oz (T288) -Stool Collection Kit, Random (T635) Container/Tube: Fecal container Specimen Volume: Representative portion of feces Collection Instructions: Collect fresh fecal specimen and submit representative sample in fecal container. Specimen Stability Information: Refrigerated (preferred) 7 days/Frozen 7 days

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Varies	7 days

CPT Code Information: 87798

MSTC1
35184

Strict Criteria Sperm Morphology for Infertility Diagnosis and Treatment, Semen

Specimen Requirements: Patient Preparation: Patient should have 2 to 7 days of sexual abstinence at the time of semen collection for accurate results. Container/Tube: Slides Specimen Volume: 2 slides-10 microL of liquefied semen on each slide Collection Instructions: 1. If sperm concentration is <10 million/mL, centrifuge the specimen at 300 x G for 10 minutes before making slides. 2 Label 2 frosted slides in pencil with the patient's first and last name and the date of specimen collection. No adhesive labels. 3. Allow the semen to liquefy for 30 minutes. 4. Place 10 mcL of liquefied semen on the label end

of each slide, and evenly smear the specimen using a plain slide (this process is the same as making a blood smear). 5. Allow the smears to air dry for 15 minutes before placing both slides into 1 slide holder for shipment.

Specimen Minimum Volume: A minimum count of sperm is needed; lab will determine

Transport Temperature:

Specimen Type	Temperature	Time
Semen	Ambient	

CPT Code Information: 89398

CHRAF
35243

Chromosome Analysis, Amniotic Fluid

Specimen Requirements: Specimen Type: Amniotic fluid Submission Container/Tube: Centrifuge tube Specimen Volume: 20 to 25 mL Collection Instructions: 1. Optimal timing for specimen collection is during 14 to 18 weeks of gestation, but specimens collected at other weeks of gestation are also accepted. 2. Discard the first 2 mL of amniotic fluid. 3. If ordering with PADF / Prenatal Aneuploidy Detection, FISH, submit a minimum of 14 mL. 4. If ordering with CMAP / Chromosomal Microarray, Prenatal, Amniotic Fluid/Chorionic Villus Sampling, submit a minimum of 24 mL. 5. If ordering with both PADF and CMAP, then submit a minimum of 26 mL. Additional Information: 1. Unavoidably, about 1% to 2% of mailed-in specimens are not viable. 2. If the specimen does not grow in culture, the client will be notified within 7 days of receipt. 3. Bloody specimens are undesirable. Specimen Type: Fetal body fluid Container/Tube: Sterile tube Specimen Volume: Entire specimen Additional Information: 1. If the specimen does not grow in culture, the client will be notified within 7 days of receipt. 2. Clearly indicate on tube and paperwork that specimen is fetal body fluid.

Specimen Minimum Volume: The following are the minimum volumes when only this test is ordered: Amniotic fluid: 12 mL Fetal body fluid: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Amniotic Fld	Refrigerated (preferred)		
	Ambient		

CPT Code Information: 88235, 88291-Tissue culture for amniotic fluid or chorionic villus cells, Interpretation and report; 88269 w/modifier 52-Chromosome analysis, in situ for amniotic fluid cells, <6 colonies, 1 karyotype with banding (if appropriate); 88269-Chromosome analysis, in situ for amniotic fluid cells, 6 or greater colonies, 1 karyotype with banding (if appropriate); 88267, 88285-Chromosome analysis, amniotic fluid or chorionic villus, greater than 15 cells, 1 karyotype with banding (if appropriate); 88267 w/modifier 52-Chromosome analysis, amniotic fluid or chorionic villus, <15 cells, 1 karyotype with banding (if appropriate);

CULAF
35244

Culture for Genetic Testing, Amniotic Fluid

Specimen Requirements: Optimal timing for specimen collection is during 14 to 18 weeks of gestation, but specimens collected at other weeks of gestation are also accepted. Container/Tube: Amniotic fluid container Specimen Volume: 5 to 10 mL Collection Instructions: 1. Discard the first 2 mL of amniotic fluid. If the culture will be performed in conjunction with other cytogenetic testing, such as CHRAF / Chromosome Analysis, Amniotic Fluid or CMAP / Chromosomal Microarray, Prenatal, Amniotic Fluid/Chorionic Villus Sampling, a total of 25 to 30 mL will be needed. 4. Unavoidably, about 1% to 2% of mailed-in specimens are not viable. 5. Bloody specimens are undesirable.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Amniotic Fld	Refrigerated (preferred)		
	Ambient		

CPT Code Information: 88235; 88240;

CHRBM
35245

Chromosome Analysis, Hematologic Disorders, Bone Marrow

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88237, 88291-Tissue culture for neoplastic disorders; bone marrow, blood, Interpretation and report; 88264 w/ modifier 52-Chromosome analysis with less than 20 cells (if appropriate); 88264-Chromosome analysis with 20 to 25 cells (if appropriate); 88264, 88285-Chromosome analysis with greater than 25 cells (if appropriate); 88283-Additional specialized banding technique (if appropriate);

DD22F
35246

22q11.2 Deletion/Duplication, FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Whole blood Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 4 mL Collection Instructions 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Other anticoagulants are not recommended and are harmful to the viability of the cells. 4. Cord blood is acceptable Additional Information: 1. If the specimen does not grow in culture, you will be notified within 7 days of receipt. 2. Specimen cannot be frozen. Acceptable: Specimen Type: Fixed cell pellet Container/Tube: Sterile container with a 3:1 fixative (methanol:glacial acetic acid) Specimen Volume: Entire specimen Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 to 25 mL Collection Instructions: 1. Optimal timing for specimen collection is during 14 to 18 weeks of gestation, but specimens collected at other weeks of gestation are also accepted. Provide gestational age at the time of amniocentesis. 2. Discard the first 2 mL of amniotic fluid. 3. If ordering with CMAP / Chromosomal Microarray, Prenatal, Amniotic Fluid/Chorionic Villus Sampling, submit a minimum of 12 mL. 4. If ordering with CHRAF / Chromosome Analysis, Amniotic Fluid, submit a minimum of 12 mL. 5. If ordering with both CMAP and CHRAF, submit a minimum of 26 mL. Additional Information: 1. Unavoidably, about 1% to 2% of mailed-in specimens are not viable. 2. Bloody specimens are undesirable. 3. If the specimen does not grow in culture, you will be notified within 7 days of receipt. 4. Specimen cannot be frozen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 to 25 mg Collection Instructions: 1. Collect specimen by the transabdominal or transcervical method. 2. Transfer chorionic villi to a Petri dish containing transport medium (such as CVS Media (RPMI) and Small Dish (T095). 3. Using a stereomicroscope and sterile forceps, assess the quality and quantity of the villi and remove any blood clots and maternal decidua. 4. If ordering with CMAP / Chromosomal Microarray, Prenatal, Amniotic Fluid/Chorionic Villus Sampling, submit a minimum of 12 mg. 5. If ordering with CHRCV / Chromosome Analysis, Chorionic Villus Sampling, submit a minimum of 12 mg. 6. If ordering with both CMAP and CHRCV, then submit a minimum of 26 mg. Additional Information: 1. Label each container with the specimen type, patient's name, and laboratory control number. 2. Specimen cannot be frozen. Specimen Type: Products of conception or stillbirth Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, sterile RPMI transport media, or normal saline Specimen Volume: 1 cm(3) of placenta (including 20 mg of chorionic villi) and a 1 cm(3) biopsy specimen of muscle/fascia from the thigh Collection Instructions: 1. Do not handle specimen with hands. 2. If a fetus cannot be specifically identified, collect 50-mg villus material or tissue that appears to be of fetal origin. Additional Information: 1. Do not send the entire fetus. 2. If a fetus is sent, please provide a parental release form or complete the Final Disposition of Fetal/Stillborn Remains form and send it with the fetus. (A copy of this form can be found in Special Instructions.) Please note that completion of the form requires a parent's signature. 3. Specimen cannot be frozen. 4. While fresher specimens prepared as described above are preferred, we can attempt analysis on specimens that have been in less-than-ideal conditions. 5. Label each container with the specimen type, patient's name, and laboratory control number. Specimen Type: Autopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, sterile RPMI transport media, or normal saline. Specimen Volume: 1 cm(3) biopsy specimen of muscle/fascia from the thigh Collection Instructions: 1. Wash biopsy site with an antiseptic soap. 2. Thoroughly rinse area with sterile water. 3. Do not use alcohol or iodine preparations. 4. Biopsy specimens are best taken by punch biopsy to include full thickness of dermis. Additional Information: 1. Label each container with the specimen type, patient's name, and laboratory control number. 2. Specimen cannot be frozen. Specimen Type: Skin biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, sterile RPMI transport media, or normal saline. Specimen Volume: 1 cm(3) biopsy specimen of muscle/fascia from the thigh Collection Instructions: 1. Wash biopsy site with an antiseptic soap. 2. Thoroughly rinse area with sterile water. 3. Do not use alcohol or iodine preparations. 4. A local anesthetic may be used. 5. Biopsy specimens are best taken by punch biopsy to include full thickness of dermis. Additional Information: 1. Label each container with the specimen type, patient's name, and laboratory control number. 2. Specimen cannot be frozen.

Specimen Minimum Volume: Amniotic fluid: 5 mL; Autopsy, skin biopsy: 4 mm; Whole blood: 2

mL; Chorionic villi: 5 mg; Fixed cell pellet: 1 pellet; Products of conception: 1 cm(3)

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 88271 x 2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271 x 2-DNA probe, each; each additional probe set (if appropriate); 88271 x 1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271 x 2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271 x 3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88273 w/modifier 52-Chromosomal in situ hybridization, less than 10 cells (if appropriate); 88273-Chromosomal in situ hybridization, 10-30 cells (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

CMACB
35247

Chromosomal Microarray, Congenital, Blood

Specimen Requirements: This test requires 2 blood specimens: 1 sodium heparin and 1 EDTA. Submit only 1 of the following specimen types: Specimen Type: Whole blood Container/Tube: Green top (sodium heparin) and lavender top (EDTA) Specimen Volume: 3-mL EDTA tube and 4-mL sodium heparin tube Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimens in original tubes. Do not aliquot. 3. Label specimen as whole blood. Specimen Type: Cord blood Container/Tube: Green top (sodium heparin) and lavender top (EDTA) Specimen Volume: 3-mL EDTA tube and 4-mL sodium heparin tube Note: The lab will attempt testing on a minimum of 1-mL whole blood, EDTA preferred. Collection Instructions: 1. Invert several times to mix blood. 2. Send cord blood specimens in original tubes. Do not aliquot. 3. Label specimen as cord blood.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81229

CHRCB
35248

Chromosome Analysis, Congenital Disorders, Blood

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole

blood Container/Tube: Green top (sodium heparin) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Other anticoagulants are not recommended and are harmful to the viability of the cells. 3. Label specimen as whole blood. Specimen Type: Cord blood Container/Tube: Green top (sodium heparin) Specimen Volume: As much as possible Collection Instructions: 1. Invert several times to mix blood. 2. Other anticoagulants are not recommended and are harmful to the viability of the cells. 3. Label specimen as cord blood.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88230, 88291- Tissue culture for Lymphocytes, Interpretation and report; 88262 w/modifier 52-Chromosome analysis less than15 cells (if appropriate); 88262-Chromosome analysis with 15 to 20 cells (if appropriate); 88262, 88285-Chromosome analysis with greater than 20 cells (if appropriate); 88280-Chromosome analysis, greater than 2 karyotypes (if appropriate); 88283-Additional specialized banding technique (if appropriate);

CHRTI
35250

Chromosome Analysis, Skin Biopsy

Specimen Requirements: Specimen Type: Skin biopsy Container/Tube: Sterile container with sterile RPMI transport media, Ringer's solution, or normal saline-RPMI transport media (T095-Petri dish is not needed for this test). Specimen Volume: 4 mm diameter Collection Instructions: 1. Wash biopsy site with an antiseptic soap. 2. Thoroughly rinse area with sterile water. 3. Do not use alcohol or iodine preparations. 4. A local anesthetic may be used. 5. Biopsy specimens are best taken by punch biopsy to include full thickness of dermis.

Specimen Minimum Volume: 4 mm punch biopsy

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 88233, 88291- Tissue culture for skin/biopsy, Interpretation and report; 88262 w/modifier 52-Chromosome analysis less than 15 cells(if appropriate); 88262-Chromosome analysis with 15 to 120 cells (if appropriate); 88262, 88285-Chromosome analysis with greater than 20 cells (if appropriate); 88280-Chromosome analysis, greater than 2 karyotypes (if appropriate); 88283-Additional specialized banding technique (if appropriate);

CHRCV
35251

Chromosome Analysis, Chorionic Villus Sampling

Specimen Requirements: Specimen Type: Chorionic villi Supplies: CVS Media (RPMI) and Small Dish (T095) Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20-30 mg Collection Instructions: 1. Collect chorionic villus specimen (CVS) by the transabdominal or transcervical method. 2. Transfer the CVS to a Petri dish containing transport medium (Such as CVS Media [RPMI] and Small Dish [T095]). 3. Using a stereomicroscope and sterile forceps, assess the quality and quantity of the villi and remove any blood clots and maternal decidua. 4. If ordering with PADF / Prenatal Aneuploidy Detection, FISH, submit a minimum of 14 mg. 5. If ordering with CMAP / Chromosomal Microarray, Prenatal, Amniotic Fluid/Chorionic Villus Sampling, submit a minimum of 24 mg. 6. If ordering with both PADF and CMAP, then submit a minimum of 26 mg.

Specimen Minimum Volume: The following is the minimum volume when only this test is ordered: 12 mg

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Tissue	Refrigerated (preferred)		
	Ambient		

CPT Code Information: 88235, 88291-Tissue culture for amniotic fluid or chorionic villus cells, Interpretation and report; 88267 w/modifier 52-Chromosome analysis, amniotic fluid or chorionic villus, <15 cells, 1 karyotype with banding (if appropriate); 88267-Chromosome analysis, amniotic fluid or chorionic villus, 15 cells, 1 karyotype with banding (if appropriate); 88267, 88285-Chromosome analysis, amniotic fluid or chorionic villus, <15 cells, 1 karyotype with banding (if appropriate);

CULFB
35257

Fibroblast Culture for Biochemical or Molecular Testing, Chorionic Villi/Products of Conception/Tissue

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Autopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 4-mm diameter Collection Instructions: 1. Wash biopsy site with an antiseptic soap. 2. Thoroughly rinse area with sterile water. 3. Do not use alcohol or iodine preparations. 4. Biopsy specimens are best taken by punch biopsy to include full thickness of dermis. Specimen Type: Chorionic villi Supplies: CVS Media (RPMI) and Small Dish (T095) Container/Tube: 15 mL tube containing 15 mL of transport media Specimen Volume: 20-30 mg Collection Instructions: 1. Collect specimen by the transabdominal or transcervical method. 2. Transfer the chorionic villi specimen to a Petri dish containing transport medium. 3. Using a stereomicroscope and sterile forceps, assess the quality and quantity of the villi and remove any blood clots and maternal decidua. Specimen Type: Products of conception or stillbirth Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 1 cm(3) of placenta (including 20 mg of chorionic villi) and a 1 cm(3) biopsy specimen of muscle/fascia from the thigh Collection Instructions: If a fetus cannot be specifically identified, collect 50 mg villus material or tissue that appears to be of fetal origin. Additional Information: Do not send entire fetus. Specimen Type: Cultured fibroblasts Container/Tube: T-25 flask Specimen Volume: 2 Full T-25 flasks Specimen Stability Information: Ambient (preferred)/Refrigerated Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container

with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Tubes of culture media can be supplied upon request (Eagle's minimum essential medium with 1% penicillin and streptomycin). Specimen Volume: 4-mm punch

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 88233; 88240;

CMAFF
35263

Chromosomal Microarray (CMA) Familial Testing, FISH

Specimen Requirements: Specimen Type: Whole blood Container/Tube: Green top (sodium heparin) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Other anticoagulants are not recommended and are harmful to the viability of the cells. Additional Information: Provide the name of the child (originally tested family member) on the request form. If testing was performed outside of Mayo Clinic Laboratories, consultation with the laboratory is required prior to ordering this test.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

DDITF
35265

Myxoid/Round Cell Liposarcoma, 12q13 (DDIT3 or CHOP) Rearrangement, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88291 DNA probe, each (first probe set), Interpretation and report; 88271x2-DNA probe, each; each additional probe set (if appropriate); 88271-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

MISCF
35267

Miscellaneous Studies Using Chromosome-Specific Probes, FISH

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20-25 mL Collection Instructions: 1. Optimal timing for specimen collection is during 14 to 18 weeks of gestation, but specimens collected at other weeks of gestation are also accepted. Provide gestational age at the time of amniocentesis. 2. Discard the first 2 mL of amniotic fluid. Additional Information: 1. Unavoidably, about 1% to 2% of mailed-in specimens are not viable. 2. Bloody specimens are undesirable. 3. If the specimen does not grow in culture, you will be notified within 7 days of receipt. 4. Results will be reported and telephoned or faxed if requested. Specimen Type: Blood (only accepted for Congenital/Hereditary [nonhematologic] testing) Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Other anticoagulants are not recommended and are harmful to the viability of the cells. Specimen Type: Chorionic villi (CVS) Supplies: CVS Media (RPMI) and Small Dish (T095) Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 to 25 mg Collection Instructions: 1. Collect specimen by the transabdominal or transcervical method. 2. Transfer chorionic villi to a Petri dish containing transport medium (eg, CVS media (RPMI)). 3. Using a stereomicroscope and sterile forceps, assess the quality and quantity of the villi and remove any blood clots and maternal decidua. Specimen Type: Lymph node Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 1 cm(3) Specimen Type: Skin biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 1-cm(3) biopsy specimen of muscle/fascia from the thigh Collection Instructions: 1. Wash biopsy site with an antiseptic soap. 2. Thoroughly rinse area with sterile water. 3. Do not use alcohol or iodine preparations. 4. A local anesthetic may be used. 5. Biopsy specimens are best taken by punch biopsy to include full thickness of dermis. Specimen Type: Tissue Preferred: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tumor tissue block. Blocks prepared with alternative fixation methods may be acceptable; provide fixation method used. Additional Information: 1. Paraffin embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Bone specimens that have been decalcified will be attempted for testing, but the success rate is approximately 50%. Acceptable: Slides Collection Instructions: For each probe set ordered, 4 consecutive, unstained, 5 micron-thick sections placed on positively charged slides. Include 1 hematoxylin and eosin-stained slide for the entire test order. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope.

However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Tumor Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger

Specimen Minimum Volume: Amniotic fluid: 5 mL; Blood: 2 mL; Chorionic villi: 5 mg; Lymph node: 0.5 cm(3); Solid tumor: 0.5 cm(3)

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271x2-DNA probe, each; each additional probe set (if appropriate); 88271x1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88273 w/modifier 52-Chromosomal in situ hybridization, less than 10 cells (if appropriate); 88273-Chromosomal in situ hybridization, 10-30 cells (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

EWSF
35268

Ewing Sarcoma, 22q12 (EWSR1) Rearrangement, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2 ; 88291 - NA probe, each (first probe set), Interpretation and report; 88271x2 -DNA probe, each; each additional probe set (if appropriate); 88271x1 -DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2 -DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3 -DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52 -Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274 -Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275 -Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

GCTF
35270

Germ Cell Tumor (GCT), Isochromosome 12p, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

GLIOF
35272

1p/19q Deletion in Gliomas, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Tissue Preferred: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded (FFPE) tumor tissue block. Blocks prepared with alternative fixation methods may be acceptable; provide fixation method used. Acceptable: Slides Collection Instructions: Six consecutive, unstained, 5 micron-thick sections placed on positively charged slides, and 1 hematoxylin and eosin-stained slide. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Four consecutive, unstained, 5-micron-thick sections placed on positively charged slides and 1 hematoxylin and eosin-stained slide

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88291- DNA probe, each (first probe set), Interpretation and report; 88271x2- DNA probe, each; each additional probe set (if appropriate); 88271x1- DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2- DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3- DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274- w/modifier 52- Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274- Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate);

IMTF
35277

Inflammatory Myofibroblastic Tumors (IMT), 2p23 (ALK) Rearrangement, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 4 unstained Collection Instructions: Submit 1 slide stained with hematoxylin and eosin and 4 consecutive unstained, positively charged, unbaked slides with 5-micron thick sections of the tumor tissue. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

FOXOF
35281

Alveolar Rhabdomyosarcoma (ARMS), 13q14 (FOXO1 or FKHR) Rearrangement, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x 2, 88291-DNA probe, each (first probe set), Interpretation and

report; 88271 x 2-DNA probe, each; each additional probe set (if appropriate); 88271-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271 x 2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271 x 3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

LCAF
35282

Lung Cancer, ALK (2p23) Rearrangement, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 4 unstained Collection Instructions: Submit 1 slide stained with hematoxylin and eosin and 4 consecutive unstained, positively charged, unbaked slides with 5-micron-thick sections of the tumor tissue. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

PLASF
35293

Plasma Cell Proliferative Disorder, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 7 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271x2-DNA probe, each; each additional probe set (if appropriate); 88271x1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

SRYF
35301

Sex-Determining Region Y, Yp11.3 Deletion, FISH

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 to 25 mL Collection Instructions: 1. Optimal timing for specimen collection is during 14 to 18 weeks of gestation, but specimens collected at other weeks of gestation are also accepted. Provide gestational age at the time of amniocentesis. 2. Discard the first 2 mL of amniotic fluid. 3. If ordering with CMAP / Chromosomal Microarray, Prenatal, Amniotic Fluid/Chorionic Villus Sampling, submit a minimum of 12 mL. 4. If ordering with CHRAF / Chromosome Analysis, Amniotic Fluid, submit a minimum of 12 mL. 5. If ordering with both CMAP and CHRAF, submit a minimum of 26 mL. Additional Information: 1. Unavoidably, about 1% to 2% of mailed-in specimens are not viable. 2. Bloody specimens are undesirable. 3. If the specimen does not grow in culture, you will be notified within 7 days of receipt. 4. Specimen cannot be frozen. Specimen Type: Autopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 4 mm diameter Collection Instructions: 1. Wash biopsy site with an antiseptic soap. 2. Thoroughly rinse area with sterile water. 3. Do not use alcohol or iodine preparations. 4. Biopsy specimens are best taken by punch biopsy to include full thickness of dermis. Specimen Type: Whole blood Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 4 mL Collection Instructions 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Other anticoagulants are not recommended and are harmful to the viability of the cells. 4. Cord blood is acceptable Additional Information: 1. If the specimen does not grow in culture, you will be notified within 7 days of receipt. 2. Specimen cannot be frozen. Specimen Type: Chorionic villus Supplies: CVS Media (RPMI) and Small Dish (T095) Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 to 25 mg Collection Instructions: 1. Collect specimen by the transabdominal or transcervical method. 2. Transfer chorionic villi to a Petri dish containing transport medium. 3. Using a stereomicroscope and sterile forceps, assess the quality and quantity of the villi and remove any blood clots and maternal decidua. Specimen Type: Fixed cell pellet Container/Tube: Sterile container with a 3:1 fixative (methanol:glacial acetic acid) Specimen Volume: Entire specimen Specimen Type: Products of conception or stillbirth Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 1 cm(3) of placenta (including 20-mg of chorionic villi) and a 1-cm(3) biopsy specimen of muscle/fascia from the thigh Collection Instructions: If a fetus cannot be specifically identified, collect villus material or tissue that appears to be of fetal origin. Additional Information: Do not send entire fetus. Specimen Type: Skin biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 4 mm diameter Collection Instructions: 1. Wash biopsy site with an antiseptic soap. 2. Thoroughly rinse area with sterile water. 3. Do not use alcohol or iodine preparations. 4. A local anesthetic may be used. 5. Biopsy specimens are best

taken by punch biopsy to include full thickness of dermis.

Specimen Minimum Volume: Amniotic fluid: 5 mL; Autopsy, skin biopsy: 4 mm; Whole blood: 2 mL; Chorionic villi: 5 mg; Fixed cell pellet: 1 pellet

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 88271x2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271x2-DNA probe, each; each additional probe set (if appropriate); 88271x1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88273 w/modifier 52-Chromosomal in situ hybridization, less than 10 cells (if appropriate); 88273-Chromosomal in situ hybridization, 10-30 cells (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

SS18F
35303

Synovial Sarcoma (SS), 18q11.2 (SS18 or SYT) Rearrangement, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 4 unstained Collection Instructions: Submit 1 slide stained with hematoxylin and eosin and 4 consecutive unstained, positively charged, unbaked slides with 5-micron thick sections of the tumor tissue. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

FUSF
35304

Low-Grade Fibromyxoid Sarcoma (LGFMS), 16p11.2 (FUS or TLS) Rearrangement, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Tissue Preferred: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded (FFPE) tumor tissue block. Blocks prepared with alternative fixation methods may be acceptable; provide fixation method used. Acceptable: Slides Collection Instructions: Four consecutive, unstained, 5 micron-thick sections placed on positively charged slides, and 1 hematoxylin and eosin-stained slide. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Two consecutive, unstained, 5 micron-thick sections placed on positively charged slides, and 1 hematoxylin and eosin-stained slide.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

XYMF
35307

Known 45,X, Mosaicism Reflex Analysis, FISH, Whole Blood

Specimen Requirements: Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 4 mL Collection Instructions 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Other anticoagulants are not recommended and are harmful to the viability of the cells. 4. Cord blood is acceptable Additional Information: 1. If the specimen does not grow in culture, you will be notified within 7 days of receipt. 2. Specimen cannot be frozen.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271x2-DNA probe, each; each additional probe set (if appropriate); 88271x1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate);

CHRHB
35308

Chromosome Analysis, Hematologic Disorders, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88237, 88291-Tissue culture for neoplastic disorders; bone marrow, blood, Interpretation and report; 88264 w/ modifier 52-Chromosome analysis with less than 20 cells (if appropriate); 88264-Chromosome analysis with 20 to 25 cells (if appropriate); 88264,88285-Chromosome analysis with greater than 25 cells (if appropriate); 88283-Additional specialized banding technique (if appropriate) ;

NADF
35312

Newborn Aneuploidy Detection, FISH, Blood

Specimen Requirements: Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send specimen in original tube. Do not aliquot. 3. Other anticoagulants are not recommended and are harmful to the viability of the cells. 4. Cord blood is acceptable.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

PADF
35313

Prenatal Aneuploidy Detection, FISH

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 to 25 mL Collection Instructions: 1. Optimal timing for specimen collection is during 14 to 18 weeks of gestation, but specimens collected at other weeks of gestation are also accepted. Provide gestational age at the time of amniocentesis. 2. Discard the first 2 mL of amniotic fluid. 3. If ordering with CMAP / Chromosomal Microarray, Prenatal, Amniotic Fluid/Chorionic Villus Sampling, submit a minimum of 12 mL. 4. If ordering with CHRAF / Chromosome Analysis, Amniotic Fluid, submit a minimum of 12 mL. 5. If ordering with both CMAP and CHRAF, then submit a minimum of 26 mL. Additional Information: 1. Unavoidably, about 1% to 2% of mailed-in specimens are not viable. 2. Bloody specimens are undesirable. 3. If the specimen does not grow in culture, you will be notified within 7 days of receipt. Acceptable: Specimen Type: Chorionic villi Supplies: CVS Media (RPMI) and Small Dish (T095) Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 to 30 mg Collection Instructions: 1. Collect specimen by the transabdominal or transcervical method. 2. Transfer chorionic villi to a Petri dish containing transport medium (Such as CVS Media (RPMI) and Small Dish). 3. Using a stereomicroscope and sterile forceps, assess the quality and quantity of the villi and remove any blood clots and maternal decidua. 4. If ordering with CMAP / Chromosomal Microarray, Prenatal, Amniotic Fluid/Chorionic Villus Sampling, submit a minimum of 12 mg. 5. If ordering with CHRCV / Chromosome Analysis, Chorionic Villus Sampling, submit a minimum of 12 mg. 6. If ordering with both CMAP and CHRCV, then submit a minimum of 26 mg.

Specimen Minimum Volume: Amniotic fluid: 2 mL; Chorionic villi: 2 mg

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)		
	Ambient		

CPT Code Information: 88271 x 2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271 x 2-DNA probe, each; each additional probe set (if appropriate); 88271 x 1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271 x 2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271 x 3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

TFE3F
35319

Alveolar Soft Part Sarcoma (ASPS)/Renal Cell Carcinoma (RCC), Xp11.23 (TFE3), FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Tissue Preferred: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded (FFPE) tumor tissue block. Blocks prepared with alternative fixation methods may be acceptable; provide fixation method used. Acceptable: Slides Collection Instructions: Four consecutive, unstained, 5 micron-thick sections placed on positively charged slides, and 1 hematoxylin and eosin-stained slide. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Two consecutive, unstained, 5 micron-thick sections placed on positively charged slides and 1 hematoxylin and eosin-stained slide

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

FUROC
35328

UroVysion for Detection of Bladder Cancer, Urine

Specimen Requirements: Specimen Type: Urine Sources: Voided urine, catheterized urine, bladder washings, stoma collections, ureteral brushings or washings, renal pelvic brushings or washings Supplies: FISH for Urothelial Carcinoma Urine Collection Kit (T509) Container/Tube: Preferred: FISH for Urothelial Carcinoma in Urocyte Urine Collection Kit Acceptable: 70% ethanol, PreservCyt, CytoLyt, ThinPrep UroCyte (UroCyte PreservCyt Solution) Specimen Volume: 30 mL Collection Instructions: 1. Follow instructions included with Urocyte Urine Collection Kit. 2. If kit is not used, submit a random urine specimen with an equal volume of 70% ethanol, PreservCyt, or CytoLyt.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 88120

APOEG
35358

Apolipoprotein E Genotyping, Blood

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81401-APOE (apolipoprotein E) (eg, hyperlipoproteinemia type III, cardiovascular disease, Alzheimer disease), common variants (eg, *2, *3, *4)

BWRS
35376

Beckwith-Wiedemann Syndrome/Russell-Silver Syndrome, Molecular Analysis, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information:

C9ORF
35377

C9orf72 Hexanucleotide Repeat, Molecular Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogeneic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

CDKZ
35385

CDKN1C Gene, Full Gene Analysis, Varies

Specimen Requirements: Submit only 1 of the following specimens: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell transplant. Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 Flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 Flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24

hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 Flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233-Tissue culture, skin or solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 88235-Amniotic fluid culture (if appropriate); 81265-Maternal cell contamination (if appropriate);

DRPL
35402

Dentatorubral-Pallidoluysian Atrophy (DRPLA) Gene Analysis, Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 81177-ATN1 (ataxin 2) (eg, denatatorubral-pallidolyuysian atrophy) gene analysis, evaluation to detect abnormal (eg, expanded) alleles

FUFXS
35427

Fragile X, Follow-up Analysis (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see FXS / Fragile X Syndrome, Molecular Analysis, Varies. No additional specimen is required. Lab will utilize specimen they already have in the lab for this test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81244

FXS
35428

Fragile X Syndrome, Molecular Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogeneic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2.

Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Direct testing of an uncultured specimen may be attempted for this test. Contact the laboratory at 800-533-1710 if direct testing is desired.). 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks is required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen can be tested from a direct extraction or culture: Contact the laboratory at 800-533-1710 if a direct testing is desired. 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81243; 88233 (if appropriate); 88240 (if appropriate); 88235 (if appropriate); 81265 (if appropriate); 81244 (if appropriate);

HAD
35452

Huntington Disease, Molecular Analysis, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 81271-HTT (huntingtin) (eg, Huntington disease) gene analysis; evaluation to detect abnormal (eg, expanded) alleles

IHC
35466

Mismatch Repair (MMR) Protein Immunohistochemistry Only, Tumor

Specimen Requirements: Tumor tissue is required. Preferred: Submit both of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88341 MLH1, MLH2, or MLH6 (if appropriate); 88342 PMS2 (if appropriate);

MATCC
35479

Maternal Cell Contamination, Molecular Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Specimen Type: Maternal blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send specimen in original tube. Specimen Stability Information: Ambient (preferred)/Refrigerated Prenatal Specimens: Submit only 1 of the following specimens: Specimen Type: Cord blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send specimen in original tube. Specimen Stability Information: Ambient (preferred)/Refrigerated Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Additional Information: A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. Specimen Stability Information: Refrigerated (preferred)/Ambient Specimen Type: Cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred)/Refrigerated Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Genetic Testing, Tissue. Specimen Stability Information: Refrigerated Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: Amniotic Fluid: 10 mL Blood, Cord Blood: 0.5 mL Chorionic Villus: 5 mg

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Varies		

CPT Code Information: 81265; ; Fibroblast Culture for Genetic Test; 88233-(if appropriate); 88240-(if appropriate); ; Amniotic Fluid Culture/Genetic Test; 88235-(if appropriate); 88240-(if appropriate); ; Each additional specimen; 81266;

BRMLH
35491

MLH1 Hypermethylation and BRAF Mutation Analysis, Tumor

Specimen Requirements: Submit 1 of the following specimens: Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: Slide Review; 88381-Microdissection, manual; ; 81210-BRAF (v-raf murine sarcoma viral oncogene homolog B1) (eg, colon cancer), gene analysis, V600E variant, if appropriate; 81288-MLH1 promoter methylation analysis, if appropriate;

ML1HM
35494

MLH1 Hypermethylation Analysis, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 2, if available, of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 81288; 88381;

MLHPB
35500

MLH1 Hypermethylation Analysis, Blood

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Requirements

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81288

PRSSZ
35532

PRSS1 Gene, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send specimen in original tube. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 81404-PRSS1 (protease, serine, 1 [trypsin 1]) (eg, hereditary pancreatitis), full gene sequence

PWAS
35535

Prader-Willi/Angelman Syndrome, Molecular Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks is required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may

proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81331-SNRPN/UBE3A, (small nuclear ribonucleoprotein polypeptide Nand ubiquitin protein ligase E3A) (eg, Prader-Willi syndrome and/or Angelman syndrome), methylation analysis; 88235-Tissue culture for amniotic fluid (if appropriate); 88240-Cryopreservation (if appropriate); 81265-Comparative analysis using Short Tandem Repeat (STR) markers; patient and comparative specimen (eg, pre-transplant recipient and donor germline testing, post-transplant non-hematopoietic recipient germline [eg, buccal swab or other germline tissue sample] and donor testing, twin zygosity testing or maternal cell contamination of fetal cells (if appropriate);

SBULB
35542

Spinobulbar Muscular Atrophy (Kennedy Disease), Molecular Analysis, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81204-AR (androgen receptor)(eg, spinal and bulba muscular atrophy, Kennedy disease, X chromosome inactivation) gene analysis; characterization of alleles (eg, expanded size or methylation status)

UNIPD
35566

Uniparental Disomy, Varies

Specimen Requirements: Specimens from both parents and the child or fetus are recommended for optimal interpretation of results. Each specimen must have a separate order for this test. Only the proband specimen will be charged. Testing can be performed if only one parent specimen is submitted, however, biparental inheritance and some types of uniparental disomy (UPD) cannot be definitively established in the absence of one parent. Additionally, there is a higher likelihood for uninformative or inconclusive results. If all required specimens are not received within one month of ordering, testing will be canceled. Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL Tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred

to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information:

YMCRO 35576 Y Chromosome Microdeletions, Molecular Detection, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 81403-DAZ/SRY (deleted in azoospermia and sex determining region Y) (eg, male infertility), common deletions (eg, AZFa, AZFb, AZFc, AZFd)

MULT 35577 Zygosity Testing (Multiple Births), Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710 Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Cord blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send cord blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. While a properly collected cord blood sample may not be at risk for maternal cell contamination, unanticipated complications may occur during collection. Therefore, maternal cell contamination studies are recommended to ensure the test results reflect that of the patient tested and are available at an additional charge. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory, or equivalent, and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed, and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured amniocytes. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens

received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81265-Comparative analysis using Short Tandem Repeat (STR) markers; patient and comparative specimen (eg, pre-transplant recipient and donor germline testing, post-transplant non-hematopoietic recipient germline [eg, buccal swab or other germline tissue sample] and donor testing, twin zygosity testing or maternal cell contamination of fetal cells; ; 88233-Tissue culture, skin or solid tissue biopsy (if appropriate); 88235-Tissue culture for amniotic fluid (if appropriate); 88240-Cryopreservation (if appropriate); 81266-Each additional specimen (eg additional cord blood donor, additional fetal samples from different cultures, or additional zygosity in multiple birth pregnancies) (as needed);

BLAST
35793

Blastomyces Antibody, Enzyme Immunoassay, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86612; 86612 (if appropriate);

PLABN
35794

Platelet Antibody Screen, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial. Additional Information: For testing neonates, draw blood from the mother of the neonate. Then follow the Collection Instructions prior to sending.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen (preferred)	365 days
	Refrigerated	48 hours

CPT Code Information: 86022

HCYSS
35836

Homocysteine, Total, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Within 4 hours of collection, centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	309 days
	Ambient	28 days

CPT Code Information: 83090

SCTF
35843

Sex Chromosome Determination, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 4 unstained Collection Instructions: Submit 1 slide stained with hematoxylin and eosin and 4 consecutive unstained, positively charged, unbaked slides with 5-micron thick sections of the tumor tissue. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x 2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271 x 2-DNA probe, each; each additional probe set (if appropriate); 88271-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271 x 2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271 x 3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

MSTF
35844

Myeloid Sarcoma, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 2 unstained for each probe set Collection Instructions: 1. Include 1 hematoxylin and eosin-stained slide for the entire test order. 2. If individual probe sets are chosen: For each probe set ordered, 2 consecutive, unstained, 5 micron-thick sections placed on positively charged slides. 3. If a complete myeloid sarcoma FISH panel is ordered, include 10 consecutive, unstained, 5 micron-thick sections placed on positively charged slides. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides

that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88291; 88271 x 2 (if appropriate); 88271 x 2 (if appropriate); 88271 (if appropriate); 88271 x 2 (if appropriate); 88271 x 3 (if appropriate); 88274 w/modifier 52 (if appropriate); 88274 (if appropriate); 88275 (if appropriate);

ROS1F
35845

Lung Cancer, ROS1 (6q22) Rearrangement, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 4 unstained Collection Instructions: Submit 1 slide stained with hematoxylin and eosin and 4 consecutive unstained, positively charged, unbaked slides with 5-micron thick sections of the tumor tissue. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

RETF
35846

Lung Cancer, RET (10q11) Rearrangement, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271x2-DNA probe, each; each additional probe set (if appropriate); 88271x1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate);

HOLDF
35847

Hematologic Disorders, Fluorescence In Situ Hybridization (FISH) Hold, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow in original tube. Do not aliquot. Acceptable: Specimen Type: Whole Blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Standard	

CPT Code Information: See individual reflex tests

HOLDC
35848

Hematologic Disorders, Chromosome Hold, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin), lavender top (EDTA) Specimen Volume: 1 to 2 mL Collection Instructions: Invert several times to mix bone marrow. Acceptable: Specimen Type: Blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin), lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Invert several times to mix blood.

Specimen Minimum Volume: Blood: 2 mL Bone marrow: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: See Individual Components

ESTUF
35851

Endometrial Stromal Tumors (EST), 7p15 (JAZF1), 6p21.32 (PHF1), 17p13.3 (YWHAE) Rearrangement, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 3 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2; 88291-DNA probe, each (first probe set), Interpretation and report; 88271x2-DNA probe, each; each additional probe set (if appropriate); 88271x1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate);

MASF
35859

Angiosarcoma, MYC (8q24) Amplification, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

SGTF
35860

MYB (6q23) Rearrangement FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. Blocks prepared with alternative fixation methods will be attempted but are less favorable for successful results by fluorescence in situ hybridization testing. 2. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Bone specimens that have been decalcified will be attempted for testing, but the success rate is approximately 50%. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 2 unstained Collection Instructions: Submit 2 consecutive unstained, positively charged, unbaked slides with 5 micron-thick sections of the tumor tissue and 1 slide stained with hematoxylin and eosin. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

CMAP
35898

Chromosomal Microarray, Prenatal, Amniotic Fluid/Chorionic Villus Sampling

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Chorionic villi Supplies: CVS Media (RPMI) and Small Dish (T095) Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 to 30 mg Collection Instructions: 1. Collect specimen by the transabdominal or transcervical method. 2. Transfer chorionic villi to a Petri dish containing transport medium (such as CVS Media [RPMI] and Small Dish). 3. Using a stereomicroscope and sterile forceps,

assess the quality and quantity of the villi and remove any blood clots and maternal decidua. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 to 30 mL Collection Instructions: 1. Optimal timing for specimen collection is during 14 to 18 weeks of gestation, but specimens collected at other weeks of gestation are also accepted. Provide gestational age at the time of amniocentesis. 2. Discard the first 2 mL of amniotic fluid. Additional Information: 1. Unavoidably, about 1% to 2% of mailed-in specimens are not viable. 2. Bloody specimens are undesirable. 3. Results will be reported and telephoned or faxed if requested.

Specimen Minimum Volume: Amniotic fluid: 12 mL; Chorionic villi: 12 mg; If ordering in conjunction with other testing: With PADF: 14 mL or 14 mg; with CHRAF: 24 mL; with CHRCV: 24 mg; with PADF and CHRAF/CHRCV: 26 mL or 26 mg

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)		
	Ambient		

CPT Code Information: 81229

CMAH
35899

Chromosomal Microarray, Hematologic Disorders, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Bone marrow Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) Specimen Volume: 1-2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Type: Whole blood Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) Specimen Volume: 7-10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood.

Specimen Minimum Volume: Blood: 2 mL; Bone marrow: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81277

CMAT
35900

Chromosomal Microarray, Tumor, Fresh or Frozen

Specimen Requirements: Submit only 1 of the following specimens: Supplies: Hank's Solution (T132) Specimen Type: Tumor biopsy Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5-3 cm(3) or larger Specimen Type: Lymph node Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline. Specimen Volume: 1 cm(3) Specimen Type: Skin biopsy Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline. Specimen Volume: 4-mm diameter Collection Instructions: 1. Wash biopsy site with an antiseptic soap. 2. Thoroughly rinse area with sterile water. 3. Do not use alcohol or iodine preparations. 4. A local anesthetic may be used. 5. Biopsy specimens are best taken by punch biopsy to include full thickness of dermis.

Specimen Minimum Volume: Tumor biopsy: 3 cm(3); Lymph node: 1 cm(3); Skin biopsy: 4 mm diameter

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81277

CMAPT 35901 Chromosomal Microarray, Tumor, Formalin-Fixed Paraffin-Embedded

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Tissue Container/Tube: Formalin-fixed, paraffin-embedded tumor tissue block Specimen Type: Slides Specimen Volume: 10 Consecutive, unstained, 5-micron-thick sections placed on positively charged slides and 1 hematoxylin and eosin-stained slide Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81277

RSCOC
35928

Coccidioides Antibody Reflex, Complement Fixation and Immunodiffusion, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see COXIS / Coccidioides Antibody Screen with Reflex, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86635 x 3

HBNTP
35936

Hepatitis B Virus Surface Antigen Confirmation, Prenatal, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see HBAGP / Hepatitis B Virus Surface Antigen Prenatal, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.8 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 87341

CARNB
35953

Carbapenemase Detection-Carba NP Test (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87185

TB1LN
35994

Antimicrobial Susceptibility, Mycobacterium tuberculosis Complex, First Line, Varies

Specimen Requirements: Specimen Type: Organism Supplies: Infectious Container, Large (T146) Container/Tube: Middlebrook 7H10 agar slant Specimen Volume: Isolate Collection Instructions: Organism must be in pure culture, actively growing.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87188 x 3-Antimicrobial Susceptibility, Mycobacterium tuberculosis Complex, Broth Method

T4FT4
36108

T4 (Thyroxine), Total and Free, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.625 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 84436; 84439;

MDNS
36309

Methadone and Metabolites, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.0 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: G0480 ; 80358 (if appropriate for select payers);

RBCS
36440

Relative B-Cell Subset Analysis Percentage, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: < or =14 years: 4 mL >14 years: 10 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen as blood for RBCS. Additional Information: For serial monitoring, it is recommended that specimens are collected at the same time of day.

Specimen Minimum Volume: < or =14 years: 3 mL; >14 years: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Refrigerated	48 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86356 x7

DIPGS
36664

Diphtheria Toxoid IgG Antibody, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	30 days

CPT Code Information: 86317

TTIGS
36667

Tetanus Toxoid IgG Antibody, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	30 days

CPT Code Information: 86317

DTABS
36670

Diphtheria/Tetanus Antibody Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	30 days

CPT Code Information: 86317 x 2

MPLR
36682

MPL Exon 10 Mutation Detection, Reflex, Varies (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see MPNR / Myeloproliferative Neoplasm, JAK2 V617F with Reflex to CALR and MPL, Varies. Submit only 1 of the following specimens: Specimen Type: Whole Blood Container/Tube: Lavender top (EDTA) or yellow top (ACD solution B) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Stability Information: Ambient (preferred)/Refrigerate Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) or yellow top (ACD solution B) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred)/Refrigerate Specimen Type: Extracted DNA from whole blood or bone marrow Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted from blood or bone marrow within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen 3. Provide volume and concentration of the DNA. Specimen Stability Information: Frozen (preferred) 1 year/Refrigerate/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	7 days

CPT Code Information: 81339-MPL (myeloproliferative leukemia virus oncogene, thrombopoietin

receptor, TPOR) (eg, myeloproliferative disorder), exon 10 sequence

WNS
36769

West Nile Virus Antibody, IgG and IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: IgG-86789; IgM-86788;

WNMS
36770

West Nile Virus Antibody, IgM, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see WNS / West Nile Virus Antibody, IgG and IgM, Serum. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86788

WNGS
36771

West Nile Virus Antibody, IgG, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see WNS / West Nile Virus Antibody, IgG and IgM, Serum. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86789

WNC
36772

West Nile Virus Antibody, IgG and IgM, Spinal Fluid

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Sterile vial Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Submit specimen from collection vial 2, 3, or 4

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 86789; 86788;

WNMC
36773

West Nile Virus Antibody, IgM, Spinal Fluid(Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see WNC / West Nile Virus Antibody, IgG and IgM, Spinal Fluid. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Sterile vial Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Submit specimen from collection vial 2, 3, or 4

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 86788

WNGC
36774

West Nile Virus Antibody, IgG, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see WNC / West Nile Virus Antibody, IgG and IgM, Spinal Fluid. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Sterile vial Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Submit specimen from collection vial 2, 3, or 4

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 86789

WNVSI
36778

West Nile Serum Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

WNVCI
36779

West Nile CSF Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	30 days

DNSAG
36781

Dengue Virus NS1 Antigen, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86790

CALX
36997

CALR Mutation Analysis, Myeloproliferative Neoplasm (MPN), Reflex, Varies (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see MPNR / Myeloproliferative Neoplasm, JAK2 V617F with Reflex to CALR and MPL, Varies. Submit only 1 of the following specimens: Specimen Type: Whole Blood Container/Tube: Lavender top (EDTA) or yellow top (ACD solution B) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Stability Information: Ambient (preferred)7 days/Refrigerate 7 days Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) or yellow top (ACD solution B) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred)7 days/Refrigerate 7 days Specimen Type: Extracted DNA from blood or bone marrow Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. Label specimen as extracted DNA from blood or bone marrow. 2. Provide volume and concentration of the DNA on the label. Specimen Stability Information: Frozen (preferred)/Refrigerate/Ambient

Specimen Minimum Volume: Whole blood/Bone marrow: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	7 days

CPT Code Information: 81219-CALR (calreticulin) (eg, myeloproliferative disorders), gene analysis, common variants in exon 9

ACMA
37030

Acetaminophen, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	24 hours

CPT Code Information: 80143

TAMIK
37031

Amikacin, Trough, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80150

PAMIK
37032

Amikacin, Peak, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80150

RAMIK
37033

Amikacin, Random, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80150

CARTA
37035

Carbamazepine, Total, Serum

Specimen Requirements: Collection Container/Tube: Red top Specimen Volume: 0.5 mL Submission Container/Tube: Plastic vial Collection Instructions: Centrifuge and aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	48 hours

CPT Code Information: 80156

CARBG
37036

Carbamazepine-10,11-Epoxide, Serum

Specimen Requirements: Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: 1. Draw blood 12 hours (trough value) after last dose. 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	48 hours

CPT Code Information:

CARTF
37037

Carbamazepine Profile, Serum

Specimen Requirements: Container/Tube: Red top Specimen Volume: 2 mL Submission Container/Tube: Plastic vial Collection Instructions: 1. Draw blood 12 hours (trough value) after last dose. 2. Centrifuge and aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	48 hours

CPT Code Information: 80156-Carbamazepine, total; 80157-Carbamazepine, free; 80161-Carbamazepine-10,11-Epoxide;

CARF
37038

Carbamazepine, Free, Serum

Specimen Requirements: Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	48 hours

CPT Code Information: 80157

CARFT
37039

Carbamazepine, Free and Total, Serum

Specimen Requirements: Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	48 hours

CPT Code Information: 80156; 80157;

GENPA
37042

Gentamicin, Peak, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 80170

GENTA
37043

Gentamicin, Trough, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 80170

GENRA
37044

Gentamicin, Random, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 80170

LITH
37046

Lithium, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood 8 to 12 hours after last dose (trough specimen). 2. Serum gel tubes should be centrifuged within 2 hours of collection. 3. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection. Additional Information: Peak serum concentrations do not correlate with symptoms.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80178

MTHX
37047

Methotrexate, Serum

Specimen Requirements: Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Amber vial Specimen Volume: 0.5 mL Collection Instructions: 1. Methotrexate is sensitive to fluorescent light; avoid prolonged exposure of specimen to direct light. 2. Within 2 hours of collection, centrifuge the specimen.

3. For serum gel tubes, aliquot serum into a plastic vial within 2 hours of collection. Keep protected from light. 4. For red-top tubes, aliquot serum into a plastic vial immediately. Keep protected from light.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	14 days	LIGHT PROTECTED
	Frozen	28 days	LIGHT PROTECTED
	Ambient	72 hours	LIGHT PROTECTED

CPT Code Information: 80204

PNYA
37048

Phenytoin, Total, Serum

Specimen Requirements: Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	14 days
	Ambient	7 days

CPT Code Information: 80185

PBR
37049

Phenobarbital, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80184

PNYG
37050

Phenytoin, Total and Phenobarbital Group, Serum

Specimen Requirements: One serum specimen (0.5 mL of serum) may be sent if using a red top tube. Serum for Phenytoin: Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial within 2 hours of collection. Serum for Phenobarbital: Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL for 2 specimens; 0.25 mL for 1 serum red top

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	72 hours
Serum Red	Refrigerated (preferred)	7 days
	Frozen	14 days
	Ambient	7 days

CPT Code Information: 80184-Phenobarbital; 80185-Phenytoin, total;

PNTFT
37051

Phenytoin, Total and Free, Serum

Specimen Requirements: Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	14 days
	Ambient	7 days

CPT Code Information: Phenytoin, total-80185; Phenytoin, free-80186;

PNYF
37052

Phenytoin, Free, Serum

Specimen Requirements: Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	14 days
	Ambient	7 days

CPT Code Information: 80186

PRMB
37053

Primidone and Phenobarbital, Serum

Specimen Requirements: Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: PRIMD-80188; PBR-80184;

SALCA
37061

Salicylate, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80179

TOBPA
37063

Tobramycin, Peak, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80200

TOBTA
37064

Tobramycin, Trough, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood no more than 30 minutes before next scheduled dose. 2. Serum gel tubes should be centrifuged within 2 hours of collection. 3. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80200

TOBRA
37065

Tobramycin, Random, Serum

Specimen Requirements: Preferred: Serum gel Acceptable: Red top Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and aliquoted within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80200

VALPA
37066

Valproic Acid, Total, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80164

VALPG
37067

Valproic Acid, Free and Total, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: VALPA-80164; VALPF-80165;

VALPF
37068

Valproic Acid, Free, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80165

VANPA
37069

Vancomycin, Peak, Serum

Specimen Requirements: Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum for a peak level should be drawn 1 hour after completion of dose. 2. Centrifuge and aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	365 days
	Ambient	48 hours

CPT Code Information: 80202

VANTA
37070

Vancomycin, Trough, Serum

Specimen Requirements: Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw specimen immediately prior to the next dose (within 30 minutes). 2. Centrifuge and aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	365 days
	Ambient	48 hours

CPT Code Information: 80202

VANRA
37071

Vancomycin, Random, Serum

Specimen Requirements: Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	365 days
	Ambient	48 hours

CPT Code Information: 80202

CHIKI
37102

Chikungunya Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see CHIKV / Chikungunya IgM and IgG, Antibody, Serum.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	30 days
	Ambient	72 hours

NOTRP
37119

Nortriptyline, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Collect specimen immediately before next scheduled dose (minimum 12 hours after last dose). 2. Within 2 hours of collection centrifuge and aliquot serum into a plastic vial. Serum must be separated from cells within 2 hours of collection.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 80299

DESPR
37123

Desipramine, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Collect specimen immediately before next scheduled dose (minimum 12 hours after last dose). 2. Within 2 hours of collection centrifuge and aliquot serum into a plastic vial. Serum must be separated from cells within 2 hours of collection.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 80299

SMPB
37406

Peripheral Blood Smear Review (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood Slide	Refrigerated	CARTRIDGE	

CPT Code Information: 85060

CYPZ
37445

21-Hydroxylase Gene, CYP21A2, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient 4 days (preferred)/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Preferred: Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred) <24 hours/Ambient <24 hours Additional information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks is required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated (preferred) <24 hours/Ambient <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours) Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid or CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell

Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405-CYP21A2 (cytochrome P450, family 21, subfamily A, polypeptide2) (eg, steroid 21-hydroxylase isoform, congenital adrenal hyperplasia), full gene sequence ; 81402-CYP21A2 (cytochrome P450, family 21, subfamily A, polypeptide2) (eg, congenital adrenal hyperplasia, 21-hydroxylase deficiency), common variants (eg, IVS2-13G, P30L, I172N, exon 6 mutation cluster [I235N, V236E, M238K], V281L, L307FfsX6, Q318X, R356W, P453S, G110VfsX21, 30-kb deletion variant); 88233-Tissue culture, skin or solid tissue biopsy (if appropriate); 88235-Tissue culture for amniotic fluid (if appropriate); 88240-Cryopreservation (if appropriate); 81265-Comparative analysis using Short Tandem Repeat (STR) markers; patient and comparative specimen (eg, pre-transplant recipient and donor germline testing, post-transplant non-hematopoietic recipient germline [eg, buccal swab or other germline tissue sample] and donor testing, twin zygosity testing or maternal cell contamination of fetal cells (if appropriate);

FIBRO
38292

FibroTest-ActiTest, Serum

Specimen Requirements: Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Amber vial Specimen Volume: 3 mL Collection Instructions: 1. Centrifuge and aliquot serum into an amber vial within 2 hours of collection. 2. Centrifuged serum must be light protected within 4 hours of collection. It is acceptable to draw the blood and then protect it from light after centrifugation as long as it is within 4 hours of collection.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	7 days	LIGHT PROTECTED
	Frozen	14 days	LIGHT PROTECTED
	Ambient	24 hours	LIGHT PROTECTED

CPT Code Information: 81596

NMOFS 38324 Neuromyelitis Optica (NMO)/Aquaporin-4-IgG Fluorescence-Activated Cell Sorting (FACS) Assay, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86053; 86053-titer (if appropriate);

NMOFC 38325 Neuromyelitis Optica (NMO)/Aquaporin-4-IgG Fluorescence-Activated Cell Sorting (FACS) Assay, Spinal Fluid

Specimen Requirements: Collection Container/Tube: Sterile vial Specimen Volume: 3 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86053; 86053-titer (if appropriate);

HMDB 39183 Heavy Metals Screen with Demographics, Blood

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are

known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free EDTA 3 mL Tube (T989) -Metal Free B-D Tube (EDTA), 6 mL (T183) Container/Tube: Preferred: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (BD catalog no. 367777) (T989) Acceptable: Royal blue-top BD Vacutainer Plus with EDTA blood collection tube (6 mL) (BD catalog no. 368381) (T183) Specimen Volume: 1 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions. 2. Send whole blood specimen in original collection tube. Do not aliquot.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82175; 82300; 83655; 83825;

OAPNS
39855

Ova and Parasite, Microscopy, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Bile Container/Tube: Sterile container Specimen Volume: Entire collection Specimen Stability Information: Refrigerate 5 days Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) and/or slides Specimen Volume: 4 mL EDTA and/or 1 slide (unstained preferred) Collection Instructions: 1. Bone marrow and/or slides will be accepted for this test. 2. If submitting slides with EDTA tube, label and bag specimens together. Send refrigerate as one collection. Specimen Stability Information: Refrigerate 5 days Specimen Type: Colonic washing Container/Tube: Preferred: ECOFIX preservative Acceptable: 10% Buffered formalin AND zinc polyvinyl alcohol (Zn PVA) (one vial of each) Specimen Volume: at least 2 mL Collection Instructions: 1. Place specimen into preservative within 30 minutes of collection. 2. Follow instructions on the container as follows: a. Colonic washings should be placed into ECOFIX preservative vial (or 10% formalin and Zn-PVA vials) in a ratio of 1 part preservative:1 part specimen. Some preservative may need to be removed from the vial to maintain this ratio. b. Place washings into vial, twist the cap tightly closed, and shake vigorously until the contents are well mixed. c. Do not fill above the fill line indicated on the preservative container. Specimen Stability Information: Ambient (preferred)/Refrigerate 5 days Specimen Type: Duodenal aspirate Preferred: ECOFIX preservative Acceptable: 10% Buffered formalin AND Zn PVA (one vial of each) Specimen Volume: at least 2 mL Collection Instructions: 1. Place specimen into preservative within 30 minutes of collection. 2. Follow instructions on the container as follows: a. Duodenal aspirate should be placed into ECOFIX preservative vial (or 10% formalin and Zn-PVA vials) in a ratio of 1 part preservative:1 part specimen. Some preservative may need to be removed from the vial to maintain this ratio. b. Place washings into vial, twist the cap tightly closed, and shake vigorously until the contents are well mixed. c. Do not fill above the fill line indicated on the preservative container. Specimen Stability Information: Ambient (preferred)/Refrigerate 5 days Specimen Type: Spinal fluid Container/Tube: Sterile container Specimen Volume: At least 1 mL Specimen Stability Information: Refrigerate 5 days Specimen Type: Fluid, abscess, drainage material Sources: Abdominal, ascites, brain, cyst (must specify anatomical location of cyst), liver, lymphatic, peritoneal, splenic Container/Tube: Sterile container AND either ECOFIX

preservative vial or one zinc (Zn)-PVA AND one 10% formalin vial Specimen Volume: 15 mL Collection Instructions: 1. Place half of collection into preservative (either ECOFIX or PVA and 10 % Formalin combo) in a ratio of 1 part preservative: 1 part specimen. Some preservative may need to be removed from the vial to maintain this ratio. 2. Label the preservative type on the side of each vial. 3. Place other half of collection in a sterile container. 3. Label both specimens, bag together, and send refrigerate as one collection. Specimen Stability Information: Refrigerate 5 days Specimen Type: Respiratory Source: Bronchial washing, bronchoalveolar lavage, sputum Container/Tube: Sterile container Specimen Volume: Entire collection Specimen Stability Information: Refrigerate 5 days Specimen Type: Tissue Sources: Bladder, brain, colon, intestine, liver, lymph node, lung, muscle, rectal, spleen (must specify anatomical location of tissue) Container/Tube: Sterile container Specimen Volume: 5 to10 mm Collection Instructions: Place specimen in sterile container with 1 to 2 drops of sterile saline to keep tissue moist. Specimen Stability Information: Refrigerate 5 days

Specimen Minimum Volume: Respiratory specimens, spinal fluid, abscess, or drainage material: 0.5 mL Tissue: 3 mm Other specimen types: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated	5 days

CPT Code Information: 87015-Concentration (any type), for infectious agents (if appropriate); 87209-Smear, primary source with interpretation; complex special stain (eg, trichrome, iron hematoxylin) for ova and parasites (If appropriate); 87210-Wet mount for infectious agents (if appropriate); 87207-Smear, primary source, with interpretation; special stain for inclusion bodies or intracellular parasites (if appropriate);

PTTP
40934

Prothrombin Time, Plasma

Specimen Requirements: Specimen Type: Platelet-poor plasma Collection Container/Tube: Light-blue top (3.2% sodium citrate) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL platelet-poor plasma Collection Instructions: 1. For complete instructions see Coagulation Guidelines for Specimen Handling and Processing 2. Centrifuge, remove plasma, and centrifuge plasma again. 3. Aliquot plasma into plastic vial leaving 0.25 mL in the bottom of centrifuged vial. Additional Information: A double-centrifuged specimen is critical for accurate results as platelet contamination may cause spurious results.

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen (preferred)	30 days
	Ambient	24 hours

CPT Code Information: 85610

APTTP
40935

Activated Partial Thromboplastin Time, Plasma

Specimen Requirements: Specimen Type: Platelet-poor plasma Collection Container/Tube: Light-blue top (3.2% sodium citrate) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge, remove plasma and centrifuge plasma again. 2. Aliquot plasma into plastic vial leaving 0.25 mL in the bottom of centrifuged vial. Additional Information: Double-centrifuged specimen is critical for accurate results as platelet contamination may cause spurious results.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen (preferred)	30 days
	Ambient	4 hours

CPT Code Information: 85730

DDITT
40936

D-Dimer, Plasma

Specimen Requirements: Specimen Type: Platelet-poor plasma Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Light-blue top (3.2% sodium citrate) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL plasma Collection Instructions: 1. Centrifuge, remove plasma, and centrifuge plasma again. 2. Aliquot plasma into plastic vial leaving 0.25 mL in the bottom of centrifuged vial. Additional Information: Double-centrifuged specimen is critical for accurate results as platelet contamination may cause spurious results.

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen (preferred)	90 days
	Ambient	4 hours

CPT Code Information: 85379

FIBTP
40937

Fibrinogen, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen (preferred)	14 days
	Ambient	24 hours

CPT Code Information: 85384

HEPTP
40938

Heparin Anti-Xa, Plasma

Specimen Requirements: Specimen Type: Platelet-poor plasma Collection Container/Tube: Light-blue top (3.2% sodium citrate) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. For complete instructions see Coagulation Guidelines for Specimen Handling and Processing. 2. Centrifuge, aliquot plasma, and centrifuge plasma again. 4. Aliquot plasma into a plastic vial leaving 0.25 mL in the bottom of centrifuged vial. Additional Information: Double-centrifuged specimen is critical for accurate results as platelet contamination may cause spurious results.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen (preferred)	14 days
	Ambient	2 hours

CPT Code Information: 85520

BAIPD
41445

Bile Acids for Peroxisomal Disorders, Serum

Specimen Requirements: Patient Preparation: Fasting: 12 to 14 hours, required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	90 days
	Ambient	90 days
	Frozen	90 days

CPT Code Information: 82542

PUPYU
41977

Purines and Pyrimidines Panel, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative needed.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen	90 days

CPT Code Information: 82542

CAH2T
42202

Congenital Adrenal Hyperplasia Newborn Screen, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Local newborn screening card, Whatman 903 filter paper, PerkinElmer 226 filter paper, Munktell filter paper Specimen Volume: 2 Blood spots Collection Instructions: 1. Do not use device or capillary tube containing EDTA to collect specimen. 2. Completely fill at least 2 circles on the filter paper card (approximately 100 microliters blood per circle). 3. Let blood dry on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	90 days	FILTER PAPER
	Frozen	90 days	FILTER PAPER
	Refrigerated	90 days	FILTER PAPER

CPT Code Information: 82542

TDP
42356

Thiamine (Vitamin B1), Whole Blood

Specimen Requirements: Patient Preparation: 1. Fasting: 12 hours, required; Infants should have specimen collected before next feeding, water can be taken as needed 2. For 12 hours before specimen collection, patient should not take vitamin supplements. Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Amber vial Specimen Volume: 4 mL Collection Instructions: 1. Invert 8 to 10 times to mix whole blood. 2. Transfer whole blood into amber vial or tube and freeze within 24 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Frozen	28 days	LIGHT PROTECTED

CPT Code Information: 84425

VITA
42357

Vitamin A, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 12 hours, required; infants should have specimen collected before next feeding 2. Patient must not consume any alcohol for 24 hours before specimen collection. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 84590

VITE
42358

Vitamin E, Serum

Specimen Requirements: Patient Preparation: Fasting: 12 hours, required; infants should have specimen collected before next feeding Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Amber vial Specimen Volume: 0.5 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a light protected plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	44 days	LIGHT PROTECTED
	Frozen	44 days	LIGHT PROTECTED
	Ambient	7 days	LIGHT PROTECTED

CPT Code Information: 84446

PLP
42359

Pyridoxal 5-Phosphate, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Plasma Heparin	Frozen	29 days	LIGHT PROTECTED

CPT Code Information: 84207

B6PRO
42360

Vitamin B6 Profile (Pyridoxal 5-Phosphate and Pyridoxic Acid), Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Plasma Heparin	Frozen	29 days	LIGHT PROTECTED

CPT Code Information: 82542; 84207;

B6PA
42361

Pyridoxic Acid, Plasma (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Plasma Heparin	Frozen	29 days	LIGHT PROTECTED

CPT Code Information: 82542

VITC
42362

Ascorbic Acid (Vitamin C), Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Plasma Heparin	Frozen	14 days	LIGHT PROTECTED

CPT Code Information: 82180

VITB2
42363

Riboflavin (Vitamin B2), Plasma

Specimen Requirements: Patient Preparation: Fasting: 12 hours, required; Infants should have specimen collected before next feeding Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Green top (sodium or lithium heparin) Acceptable: Light-green top (sodium or lithium heparin plasma gel) Submission Container/Tube: Amber vial Specimen Volume: 2 mL Plasma Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into a amber vial.

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Plasma Heparin	Refrigerated (preferred)	28 days	LIGHT PROTECTED
	Frozen	28 days	LIGHT PROTECTED
	Ambient	72 hours	LIGHT PROTECTED

CPT Code Information: 84252

VITK1
42364

Vitamin K1, Serum

Specimen Requirements: Patient Preparation: Fasting: 12 hours, required; Infants should have specimen collected before next feeding Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Amber vial Specimen Volume: 2 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For red-top tubes: Preferred: Immediately aliquot serum into an amber or light-protected plastic vial. Acceptable: Serum may be on whole blood cells a maximum of 2 hours before aliquoting. Protect the collection tube from light. 3. For serum-gel tubes: Preferred: Immediately aliquot serum into an amber or light-protected plastic vial. Acceptable: Serum may be aliquoted into an amber or light-protected plastic vial within 24 hours of collection when kept at ambient temperature and protected from light or within 7 days of collection if kept refrigerated and protected from light.

Specimen Minimum Volume: Serum: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 84597

CLZ
42366

Clozapine, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Collect specimen immediately before next scheduled dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. Additional Information: Therapeutic range (trough level) applies to specimens collected immediately prior to next dose.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 80159

PLFA
42396

Cryptococcus Antigen Screen, Lateral Flow Assay, Pleural Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 0.5 mL Collection Instructions: Collect pleural fluid in a sterile vial.

Specimen Minimum Volume: 0.25

Transport Temperature:

Specimen Type	Temperature	Time
Pleural Fluid	Refrigerated (preferred)	21 days
	Frozen	30 days

CPT Code Information: 87899-Cryptococcus Ag Screen, LFA, PF; 87899-Cryptococcus Ag Titer, LFA, PF (if appropriate);

CYCPK
42427

Cyclosporine, Peak, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Do not centrifuge. 2. Send whole blood specimen in original tube. Do not

aliquot. Additional Information: No definitive therapeutic or toxic ranges have been established for this peak testing.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 80158

AN1TS 43431 Antineuronal Nuclear Antibody-Type 1 (ANNA-1) Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: AIAES / Axonal Neuropathy, Autoimmune/Paraneoplastic Evaluation, Serum DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum DYS2 / Dysautonomia, Autoimmune/Paraneoplastic Evaluation, Serum ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum GID2 / Gastrointestinal Dysmotility, Autoimmune/Paraneoplastic Evaluation, Serum MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum PCDES / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Serum

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

AN2TS 43432 Antineuronal Nuclear Antibody Type 2 (ANNA-2) Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: DMS2 /

Dementia, Autoimmune/Paraneoplastic Evaluation, Serum ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

AN3TS
43433

Antineuronal Nuclear Antibody Type 3 (ANNA-3) Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum AIAES / Axonal Neuropathy, Autoimmune/Paraneoplastic Evaluation, Serum MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

AGNTS
43434

Anti-Glial/Neuronal Nuclear Antibody-Type 1 (AGNA-1) Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -PAVAL /

Paraneoplastic, Autoantibody Evaluation, Serum -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum -MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum -AIAES / Axonal Neuropathy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

CRMTS
43436

Collapsin Response-Mediator Protein-5 (CRMP-5) Neuronal IgG Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -PAVAL / Paraneoplastic, Autoantibody Evaluation, Serum -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum -MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum -DYS2 / Dysautonomia, Autoimmune/Paraneoplastic Evaluation, Serum -GID2 / Gastrointestinal Dysmotility, Autoimmune/Paraneoplastic Evaluation, Serum -PVLE / Paraneoplastic Vision Loss Evaluation, Serum -AIAES / Axonal Neuropathy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

PC1TS
43437

Purkinje Cell Cytoplasmic Antibody Type 1 (PCA-1) Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For further information see: ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

PC2TS
43438

Purkinje Cell Cytoplasmic Antibody Type 2 (PCA-2) Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -PAVAL / Paraneoplastic, Autoantibody Evaluation, Serum -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum -MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum -AIAES / Axonal Neuropathy, Autoimmune/Paraneoplastic Evaluation, Serum -DYS2 / Dysautonomia, Autoimmune/Paraneoplastic Evaluation, Serum -GID2 / Gastrointestinal Dysmotility, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

PCTTS
43439

Purkinje Cell Cytoplasmic Antibody Type Tr (PCA-Tr) Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -PAVAL / Paraneoplastic Autoantibody Evaluation, Serum -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum -PCDES / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Serum

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

AN1TC
43440

Antineuronal Nuclear Antibody-Type 1 (ANNA-1) Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid PCDEC / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Spinal Fluid

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

AN2TC
43441

Antineuronal Nuclear Antibody Type 2 (ANNA-2) Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

AN3TC
43442

Antineuronal Nuclear Antibody Type 3 (ANNA-3) Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

AGNTC
43443

Anti-Glial/Neuronal Nuclear Antibody-Type 1 (AGNA-1) Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid Container/Tube: Sterile vial Specimen Volume: 2 mL

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

CRMTC
43445

Collapsin Response-Mediator Protein-5 (CRMP-5) Neuronal IgG Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid Container/Tube: Sterile vial Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

PC1TC
43446

Purkinje Cell Cytoplasmic Antibody Type 1 (PCA-1) Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid Container/Tube: Sterile vial Specimen Volume: 4 mL

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

PC2TC
43447

Purkinje Cell Cytoplasmic Antibody Type 2 (PCA-2) Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid Container/Tube: Sterile vial Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

PCTTC
43448

Purkinje Cell Cytoplasmic Antibody, Type Tr (PCA-Tr) Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -PCDEC / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Spinal Fluid Container/Tube: Sterile vial Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

MCTGC 43721 Chlamydia trachomatis and Neisseria gonorrhoeae, Miscellaneous Sites, Nucleic Acid Amplification, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information: 87494

JAKXR 44178 JAK2 Exon 12-15 Sequencing, Polycythemia Vera Reflex, Varies (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information, see PVJAK / Polycythemia Vera, JAK2 V617F with Reflex to JAK2 Exon 12-15, Sequencing for Erythrocytosis, Varies. Submit only 1 of the following specimens: Specimen Type: Blood Container/Tube: Lavender top (EDTA) or yellow top (ACD-B) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Type: Bone marrow aspirate Container/Tube: Lavender top (EDTA) or yellow top (ACD-B) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: Whole blood: 8 mL; Bone marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	5 days
	Ambient	5 days

CPT Code Information: 0027U-JAK2 (Janus kinase 2) (eg, myeloproliferative disorder), exon 12 sequence and exon 13 sequence, if performed

MPNML
44179

MPL Exon 10 Sequencing, Reflex, Varies (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see MPNCM / Myeloproliferative Neoplasm, CALR with Reflex to MPL, Varies. Submit only 1 of the following specimens: Specimen Type: Whole Blood Container/Tube: Lavender top (EDTA) or yellow top (ACD-B) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Stability Information: Ambient (preferred)/Refrigerate Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) or yellow top (ACD-B) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred)/Refrigerate Specimen Type: Extracted DNA from blood or bone marrow Container/Tube: 1.5 to 2 mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted from blood or bone marrow within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of the DNA. Specimen Stability Information: Frozen (preferred) 1 year/Refrigerate/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81339-MPL (myeloproliferative leukemia virus oncogene, thrombopoietin receptor, TPOR) (eg, myeloproliferative disorder), exon 10 sequence

ANAID
45010

Anaerobe Ident (Bill Only)

Specimen Requirements: This test is for Billing Purposes Only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87076

COMM
45070

Identification, Commercial Kit (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87077

D2F
45079

Fungal Sequencing Identification (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87153

FUNA
45196

Fungal Ident Panel A (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87107

FUNB
45205

Fungal Ident Panel B (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87107

ISAE
45246

Aerobe Identification by Sequencing (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87153

ISAN
45255

Anaerobe Identification by Sequencing (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87153

SANA
45337

Anaerobe Suscep per Agent (Bill Only)

Specimen Requirements: This test is for Billing Purposes Only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87181

STAP
45362

Identification Staphylococcus (Bill Only)

Specimen Requirements: This test is for Billing Purposes Only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87077

STRP
45371

Identification Streptococcus (Bill Only)

Specimen Requirements: This test is for Billing Purposes Only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87077

VID2
45455

Additional Testing Virus Ident (Bill Only)

Specimen Requirements: This test is for Billing Purposes Only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87253

HMHA
45479

Heavy Metals, Hair

Specimen Requirements: Supplies: Hair and Nails Collection Kit (T565) Source: Head (preferred), beard, mustache, chest, pubic Specimen Volume: 0.2 g Collection Instructions: Prepare and transport specimen per the instructions in kit or see Collecting Hair and Nails for Metals Testing.

Specimen Minimum Volume: 0.05 g

Transport Temperature:

Specimen Type	Temperature	Time
Hair	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 82175; 83655; 83825;

ROMA1
46916

Risk Score, if Premenopausal, Serum (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	84 days
	Refrigerated	48 hours

ROMA2
46917

Risk Score, if Postmenopausal, Serum (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	84 days
	Refrigerated	48 hours

DOCS
46919

11-Deoxycorticosterone, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Morning (8 a.m.) specimen is preferred. 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days
	Ambient	7 days

CPT Code Information: 82633

DCORT
46920

11-Deoxycortisol, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Morning (8 a.m.) specimen is preferred. 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82634

WASQR
47958

Alpha-Globin Gene Sequencing, Blood (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -REVE2 / Erythrocytosis Evaluation, Blood -HBEL1 / Hemoglobin Electrophoresis Evaluation, Blood -HAEV1 / Hemolytic Anemia Evaluation, Blood -MEV1 / Methemoglobinemia Evaluation, Blood -THEV1 / Thalassemia and Hemoglobinopathy Evaluation, Blood and Serum

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	14 days

CPT Code Information: 81259-HBA1/HBA2; full sequence

WBSQR
47959

Beta-Globin Gene Sequencing, Blood (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -REVE2 / Erythrocytosis Evaluation, Blood -HBEL1 / Hemoglobin Electrophoresis Evaluation, Blood -HAEV1 / Hemolytic Anemia Evaluation, Blood -MEV1 / Methemoglobinemia Evaluation, Blood -THEV1 / Thalassemia and Hemoglobinopathy Evaluation, Blood and Serum

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	14 days

CPT Code Information: 81364-HBB (hemoglobin, beta) full sequence

HAIGM
48064

Hepatitis A Virus IgM Antibody, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86709

CRTS1
48216

Creatinine with Estimated Glomerular Filtration Rate (eGFR), Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days
	Ambient	24 hours

CPT Code Information: 82565

MYCOG
48317

Mycoplasma pneumoniae Antibodies, IgG, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see MYCO / Mycoplasma pneumoniae Antibodies, IgG and IgM, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86738

MYCOM 48318 Mycoplasma pneumoniae Antibodies, IgM, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see MYCO / Mycoplasma pneumoniae Antibodies, IgG and IgM, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86738

MYCON 48319 Mycoplasma pneumoniae Antibody Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see MYCO / Mycoplasma pneumoniae Antibodies, IgG and IgM, Serum.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

PARVG 48320 Parvovirus B19 Antibodies, IgG, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see PARVS / Parvovirus B19 Antibodies, IgG and IgM, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Information: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86747

PARVM
48321

Parvovirus B19 Antibody, IgM, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see PARVS / Parvovirus B19 Antibodies, IgG and IgM, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Information: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86747

PARVN
48322

Parvovirus B19 Antibody, Technical Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see PARVS / Parvovirus B19 Antibodies, IgG and IgM, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Information: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

HVCOP
48341

HIV-1 and HIV-2 Antigen and Antibody Routine Screen, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Plasma Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	30 days
	Refrigerated	6 days

CPT Code Information: 87389; G0475; 86701 (if appropriate); 86702 (if appropriate); 87536 (if appropriate);

B210R
48390

BCR::ABL1, p210, mRNA Detection, Reverse Transcription-PCR (RT-PCR), Quantitative, Reflex, Varies (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see BCRFX / BCR::ABL1 Qualitative Diagnostic Assay with Reflex to BCR::ABL1 p190 Quantitative Assay or BCR::ABL1 p210 Quantitative Assay, Varies Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Label specimen as blood. 3. Send whole blood specimen in original tube. Do not aliquot. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Whole blood: 8 mL; Bone marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	72 hours	PURPLE OR PINK TOP/EDTA
	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81206

B190R
48391

BCR::ABL1, p190, mRNA Detection, Reverse Transcription-PCR (RT-PCR), Quantitative, Reflex, Varies (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see BCRFX / BCR::ABL1 Qualitative Diagnostic Assay with Reflex to BCR::ABL1 p190 Quantitative Assay or BCR::ABL1 p210 Quantitative Assay, Varies. Submit only 1 of the following specimens: Specimen Type: Whole blood Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Label specimen as blood. 3. Send whole blood specimen in original tube. Do not aliquot. Specimen Type: Bone marrow Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Whole blood: 8 mL; Bone marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	72 hours	PURPLE OR PINK TOP/EDTA
	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81207

HIVDX
48392

HIV-1 and HIV-2 Antigen and Antibody Diagnostic Evaluation, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Plasma Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	30 days
	Refrigerated	6 days

CPT Code Information: 87389; 86701 (if appropriate); 86702 (if appropriate); 87536 (if

appropriate);

HIVSP
48393

HIV Antigen and Antibody Prenatal Routine Screen, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Plasma Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Transfer plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	30 days
	Refrigerated	6 days

CPT Code Information: 87389; G0475 (if appropriate);

MYCO
48394

Mycoplasma pneumoniae Antibodies, IgG and IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86738 x 2-Mycoplasma pneumoniae by EIA; 86738-Mycoplasma pneumoniae by indirect IFA (if appropriate);

PARVS
48395

Parvovirus B19 Antibodies, IgG and IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial

Specimen Volume: 0.5 mL Collection Information: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86747 x 2

PLFAT
48431

Cryptococcus Antigen Titer, Lateral Flow Assay, Pleural Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see PLFA / Cryptococcus Antigen Screen, Lateral Flow Assay, Pleural Fluid. Container/Tube: Sterile vial Specimen Volume: 0.5 mL Collection Instructions: Collect pleural fluid in a sterile vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Pleural Fluid	Refrigerated (preferred)	21 days
	Frozen	30 days

CPT Code Information: 87899

ASU24
48537

Arsenic with Reflex, 24 Hour, Urine

Specimen Requirements: Patient Preparation: 1. For 48-hour period prior to start of collection, patient should not eat seafood. 2. High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert. Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert. Specimen Volume: 6 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 82175

HMU24
48538

Heavy Metals Screen, with Reflex, 24 Hour, Urine

Specimen Requirements: 1. For the 48-hour period prior to the start of collection, as well as during the collection, patient should not eat seafood. 2. High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic aliquot container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 6 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 82175; 82300; 83825; 83655;

FBL
50022

Fungal Culture, Blood

Specimen Requirements: Container/Tube: Preferred: Green top (sodium or lithium heparin) Acceptable: SPS (sodium polyanethol sulfonate) Specimen Volume: 5 mL Pediatric Volume: 3 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. SPS tubes are acceptable but not preferred. Note: SPS tubes must be clearly labeled as SPS. If label is obscured, sample may be cancelled, as ACD (yellow top) is not an acceptable tube type.

Specimen Minimum Volume: Adults: 1 mL; Pediatrics: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 87103-Blood; 87106-Id MALDI-TOF Mass Spec Yeast (if appropriate); 87107-Id MALDI-TOF Mass Spec Fungi (if appropriate); 87107-Fungal identification panel A (if appropriate); 87107-Fungal identification panel B (if appropriate); 87153-D2 fungal sequencing identification (if appropriate); 87153- ITS Fungal Sequencing (if appropriate);

FGABA
51115

Gabapentin, Urine

Specimen Requirements: Collect 10 mL random urine without preservatives. Ship refrigerated in a plastic container.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80307

PPAP
52964

Parental Sample Prep for Prenatal Microarray Testing, Blood

Specimen Requirements: This test requires 2 blood specimens: 1 sodium heparin and 1 EDTA Specimen Type: Whole blood Container/Tube: Green top (sodium heparin) and lavender top (EDTA) Specimen Volume: 3 mL EDTA and 4 mL sodium heparin Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimens in original tubes. Do not aliquot.

Specimen Minimum Volume: 2 mL EDTA and 2 mL sodium heparin whole blood

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	
	Refrigerated	

CPT Code Information: This test ID contains no charge and serves as a way to correlate proband parental specimens. If additional testing is warranted, the appropriate tests will be added.

MMLSA 56031 Antimicrobial Susceptibility, Anaerobic Bacteria, Minimal Inhibitory Concentration, Varies

Specimen Requirements: Specimen Type: Organism in pure culture Supplies: -Anaerobic Transport Tube (T588) -Infectious Container, Large (T146) Container/Tube: Preferred: Anaerobic transport tube Acceptable: Thioglycollate broth or any other suitable anaerobic transport system. Agar plates are NOT acceptable. Collection Instructions: 1. Perform isolation of infection bacteria. 2. Organism must be in pure culture and actively growing. Do not submit mixed cultures. 3. Place specimen in a large infectious container and label as an etiologic agent/infectious substance if appropriate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87186-Antimicrobial Susceptibility, Anaerobic Bacteria, MIC; 87076-Organism Ref for ID, Anaerobic Bact (if appropriate); 87076-Anaerobe Ident (if appropriate); 87076-Id MALDI-TOF Mass Spec Anaerobe (if appropriate); 87153-Anaerobe ident by sequencing (if appropriate); 87150-Identification by PCR (if appropriate); 87185-Beta Lactamase (if appropriate); 87181-Anaerobe Susceptibility per Agent (if appropriate); 87150-mecA PCR (if appropriate);

MTBPZ 56099 Mycobacterium tuberculosis Complex, Pyrazinamide Resistance by pncA DNA Sequencing, Varies

Specimen Requirements: Specimen Type: Organism Supplies: Infectious Container, Large (T146) Container/Tube: Middlebrook 7H10 agar slant Specimen Volume: Isolate Collection Instructions: Organism must be in pure culture, actively growing.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87153-Mtb PZA Confirmation, pncA Sequence

AHEP
56105

Acute Viral Hepatitis Profile, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2.7 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot 2 mL serum into a plastic vial labeled as SST Serum, and ship frozen (preferred).

Specimen Minimum Volume: 1.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 80074 (if all 4 initial tests are performed); 86709 (if all 4 are not performed); 86705 (if all 4 are not performed); 87340 (if all 4 are not performed); 86803 (if all 4 are not performed); 87522 (if appropriate); 87341 (if appropriate);

ZW221
57103

Miscellaneous Baylor Medical Genetics Laboratories

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FZIP
57107

Ziprasidone (Geodone, Zeldox)

Specimen Requirements: Submit only 1 of the following specimens Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80342

FARI
57112

Aripiprazole

Specimen Requirements: Submit only 1 of the following specimens Specimen Type: Serum Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: 1. Centrifuge and aliquot 2 mL serum into a plastic vial. 2. Send refrigerate. Additional Information: Trough levels are the most reproducible. Specimen Type: Plasma Collection Container/Tube: Green top (sodium heparin) (plasma gel/PST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Plasma Collection Instructions: 1. Centrifuge and aliquot 2 mL plasma into a plastic vial. 2. Send refrigerate. Additional Information: Trough levels are the most reproducible.

Specimen Minimum Volume: Serum/Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	25 days
	Ambient	72 hours

CPT Code Information: 80299

FMVCO
57122

MVista Coccidioides Quantitative Antigen EIA

Specimen Requirements: Specimen Type: Urine Container/Tube: Plastic preservative-free urine container Specimen Volume: 2 mL Collection Instructions: Collect 2 mL random urine specimen. Ship specimen refrigerated in a plastic, preservative-free urine container. Note: Sputolysin and Sodium Hydroxide are interfering substances.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Ambient	48 hours
	Frozen	

CPT Code Information: 87449

ZW224
57157

Miscellaneous Revvity Omics

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FFTRO
57159

Trofile DNA Co-Receptor Tropism Assay

Specimen Requirements: Specimen Type: Whole Blood Container/Tube: Lavender-top (EDTA) Specimen Volume: 4 mL Collection Instructions: Draw 4 mL blood in a lavender-top (EDTA) tube(s), (Do not centrifuge.) Freeze and ship frozen. To avoid delays in turnaround time when requesting multiple tests, please submit separate frozen specimens for each test requested. Note: Trofile DNA is recommended for patients with undetectable viral loads.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Frozen	14 days

CPT Code Information: 87999

ZW227
57163

Miscellaneous National B Virus Resource Laboratory

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FROPI
57171

Ropivacaine, Serum/Plasma

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Submit only 1 of the following specimens: Serum Draw blood in a plain, red-top tube(s). (Serum gel tube is not acceptable.) Spin down and send 1 mL serum refrigerate in a plastic vial. Plasma Draw blood in a lavender-top (EDTA) or pink top tube(s). (Plasma gel tube is not acceptable.) Spin down and send 1 mL plasma refrigerate in plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	30 days
	Frozen	90 days
	Ambient	30 days

CPT Code Information: 80299

ZW234
57175

Miscellaneous University of Alabama at Birmingham

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW238
57179

Miscellaneous University of Southern California Endocrine Laboratories

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to

the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW239
57180

Miscellaneous Cincinnati Children's Hospital Medical Center-Hematology/Oncology

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FMNRB
57196

Manganese, RBC and Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.5 mL each plasma and RBCs

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Metal Free EDTA Plasma	Refrigerated (preferred)	5 days	METAL FREE
	Ambient	72 hours	METAL FREE
RBCS	Refrigerated (preferred)	5 days	METAL FREE
	Ambient	72 hours	METAL FREE

CPT Code Information: 83785

FMTAG
57260

Rickettsia typhi (murine typhus) Antibodies, IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send frozen.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Refrigerated	5 days

CPT Code Information: 86757

FCQBA
57301

Circulating Immune Complex, C1q Binding

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: 1. Allow complete clotting of red blood cells (up to 1 hour). 2. Within 30 minutes after clotting is complete, centrifuge and aliquot serum into a plastic vial. 3. Freeze immediately. 4. Send frozen. Note: Critical frozen. Separate specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86332

FPHFL
57309

pH, Fecal

Specimen Requirements: Container/Tube: Stool container Specimen Volume: 5 g Collection Instructions: 1. Collect a random unpreserved fecal specimen 2. Send frozen Note: Separate specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: 1 g

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen (preferred)	14 days
	Refrigerated	14 days

CPT Code Information: 83986

F100B
57349

S-100B Protein, Serum

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2 mL serum Collection Instructions: 1. Allow specimen to clot completely at ambient temperature. 2. Within 2 hours of collection, centrifuge and aliquot 2 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days
	Ambient	24 hours

CPT Code Information: 86316

FHSTW
57368

Histamine, Whole Blood

Specimen Requirements: Specimen Type: Whole Blood Collection Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Green top (lithium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Draw blood in a green-top tube (sodium or lithium heparin). 2. Aliquot 1 mL well mixed whole blood into a plastic vial. 3. Freeze specimen.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
WB Heparin	Frozen	180 days

CPT Code Information: 83088

FIMMC
57370

Immunoglobulins, CSF Quantitative

Specimen Requirements: Collection Container/Tube: Leak-proof container Submission Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge spinal fluid to remove cellular material. 2. Transfer 1 mL into a plastic vial. 3. Send refrigerated.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	30 days
	Frozen	180 days

CPT Code Information: 82784 x3

ZW242
57378

Miscellaneous ARUP Testing

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FPAB
57394

Vitamin B5 (Pantothenic Acid) Bioassay

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Allow specimen to clot for 30 minutes at room temperature. 2. Centrifuge for 15 minutes at 1000 x g. 3. Aliquot 0.5 mL serum into a plastic vial. 4. Send frozen.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	21 days
	Refrigerated	7 days

CPT Code Information: 84591

FALFG
57519

Almond Food IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FANSE
57520

Annatto Seed (Bixa orellana) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FBEBE
57521

Bean Black (Phaseolus spp) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FBGSG
57522

Bean Green/String IgG

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and

aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FBLME
57523

Bean Lima (Phaseolus limensis) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FCRDE
57524

Carmine Dye/Red Dye Cochineal (Dactylopius coccus) IgE (Red # 4)

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FCOFE
57525

Coffee (Coffea spp) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FCORG
57526

Corn IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge down and aliquot 0.5 mL of serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FDKYE
57528

Dock Yellow (Rumex crispus) IgE

Specimen Requirements: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FEWG4
57529

Egg White IgG4

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum in a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FEWHG
57530

Egg Whole IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel

tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum in a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FHSSE
57532

Helminthosporium sativum/Drechslera IgE

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FHSPL
57533

Histamine Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	28 days

CPT Code Information: 83088

FMPRE
57535

Maple Red (Acer rubrum) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FMCG4
57536

Milk Cow IgG4

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FPNTG
57537

Peanut IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FPCYE
57538

Pepper Cayenne (Capsicum frutescens) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FPTWG
57539

Potato White IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FPYRE
57540

Pyrethrum IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FSFLE
57541

Safflower (Carthamus tinctorius) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FSHRG
57542

Shrimp IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FSCNE
57543

Sugar Cane (Saccharum officinarum) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FCTUR 57544 Turmeric (Curcuma longa) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FWHFE 57545 Whitefish IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FBBLE 57546 Bass Black (Sea Bass) (Centropristis striata) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1.

Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FCUIX
57549

CU Index

Specimen Requirements: Patient Preparation: Patients taking calcineurin inhibitors should stop medication 72 hours prior to draw. Patients taking prednisone should be off their medication for 2 weeks prior to draw. Specimen Type: Serum Collection Container/Tube: Red or SST Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: 1. Draw 5 mL blood in a serum separator tube (SST) (plain, red-top tube is acceptable). 2. Separate from cells within 2 hours of draw. Send 2 mL of serum ambient in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Ambient (preferred)	14 days
	Frozen	14 days
	Refrigerated	14 days

CPT Code Information: 86343

FSOYG
57551

Soybean IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FWHTG
57553

Wheat IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCATE
57554

Catfish (Siluriformes spp) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FCASG
57555

Casein IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum in a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FHADE
57556

Haddock (Melanogrammus aeglefinus) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FPOPW
57557

Poplar White (Populus alba) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FGLUT
57559

Gluten IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FWALP
57561

Wall Eyed Pike (Sander vitreus)(Stizostedium vitreum) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1.

Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FZCCE
57562

Zucchini (Cucurbita spp) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FIL8S
57563

Interleukin-8 (IL-8) Serum

Specimen Requirements: Specimen Type: Serum Collection Container/Tube: Red or SST Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1 mL of serum frozen in a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 83520

FPRK4
57564

Pork IgG4

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCOR4
57569

Corn IgG4

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum in a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FWHG4
57570

Wheat IgG4

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FPNG4
57571

Peanut IgG4

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCCGG
57573

Cheese Cheddar IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of

serum in a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FSYG4
57574

Soybean IgG4

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FOATG
57576

Oat IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FWHGY
57577

Whey IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FBARG
57578

Barley IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FRFYG
57579

Rye Food IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FPHAS
57580

Phadiatop (Allergy Screen)

Specimen Requirements: Specimen Type: Serum Container/Tube: Red or SST Specimen Volume: 0.5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	28 days

CPT Code Information: 86005

FEGYK
57582

Egg Yolk IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel

Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum in a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FBWME
57583

Bayberry/Wax Myrtle (Myrica spp) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FEGWH
57584

Egg White IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum in a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FIL4S
57585

Interleukin-4 (IL-4) Serum

Specimen Requirements: Specimen Type: Serum Collection Container/Tube: Red or SST Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1 mL of serum frozen in a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 83520

FIFNY
57586

Interferon-gamma (IFN-y) Serum

Specimen Requirements:

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	365 days

CPT Code Information: 83520

FCUIP
57590

CU (Chronic Urticaria) Index Panel

Specimen Requirements: Patient preparation: Patients taking calcineurin inhibitors should stop medication 72 hours prior to draw. Patients taking prednisone should be off their medication for 2 weeks prior to draw. Specimen Type: Serum Container/Tube: Red or SST Specimen Volume: 3 mL Collection Instructions: Draw blood in Red-top tube (SST is acceptable). Separate from cells within 2 hours of draw. Send 3 mL of serum refrigerate in a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	7 days
	Ambient	5 days

CPT Code Information: 84443; 86343; 86376; 86800;

FG4FP
57591

IgG4 Food Panel VIII

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001 x 6

FHBG
57618

Hepatitis B Virus Genotyping

Specimen Requirements: Specimen Type: Plasma Collection Container/Tube: EDTA (lavender or pink top) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Plasma Collection Instructions: 1.Centrifuge and aliquot 2 mL plasma into a plastic vial. 2. Send frozen. Additional Information: This test may be unsuccessful if the HBV Viral load is less than log 3.0 or 1000 IU/mL of plasma.

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	42 days
	Refrigerated	7 days
	Ambient	72 hours

CPT Code Information: 87912

FCHXG
57625

Chicken IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FBEFG
57626

Beef IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FPORG
57627

Pork IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FMATG
57628

Tomato IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FAPLG
57629

Apple IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCRTG
57630

Carrot IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FSALG
57631

Salmon IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel

Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FORNG
57632

Orange IgG

Specimen Requirements: Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FRICE
57633

Rice IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FGARG
57634

Garlic IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FBANG
57635

Banana IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FONG
57636

Onion IgG

Specimen Requirements: Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FHALG
57637

Halibut IgG

Specimen Requirements: Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FLETG
57639

Lettuce IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FWALG
57640

Walnut Food (Juglans spp) IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FGORG
57641

Turkey IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FLEMG
57643

Lemon IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), a serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum in a plastic vial. 3 Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCHCG
57644

Chocolate/Cacao IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and send 0.5 mL of serum in a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FPBLG
57645

Pepper Black IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable.

Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FARWB
57647

Anti-retinal autoantibodies follow up, WB

Specimen Requirements: Note: This test should only be ordered as follow up to previous Anti-retinal autoantibodies performed at Oregon Health Sciences University (OHSU) Ocular Immunology Laboratory. Submit only one of the following specimens: Serum: Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 5 mL serum refrigerated in a plastic vial. Plasma: Draw blood in a lavender-top (EDTA) tube(s). Spin down and send 5 mL EDTA plasma refrigerated in a plastic vial. Complete and submit with specimen: Completed OHSU Ocular request form Clinical history Referring physician information (name & phone number) -NOTE: Without this information, testing cannot be completed.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated	7 days

CPT Code Information: 84182

FCUKG
57651

Cucumber IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FMELG
57652

Melons IgG

Specimen Requirements: Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FGRPG
57653

Grape IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FPGNG
57654

Pea Green IgG

Specimen Requirements: Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FBNWG
57655

Bean Navy/White IgG

Specimen Requirements: Specimen Type: Serum Container/Tube: Red Top Specimen Volume: 0.5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FSTBG
57656

Strawberry IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a

plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FPBPG
57657

Pepper Bell/Paprika IgG

Specimen Requirements: Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FBLUG
57658

Blueberry IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FMUSG
57659

Mushroom IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FBSLG
57660

Basil IgG

Specimen Requirements: Specimen Type: Serum Container/Tube: Red Top Specimen Volume: 0.5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FBKG
57662

Bean Kidney IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FALG
57663

Alpha Lactalbumin IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FRASP
57665

Raspberry IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood

in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FPEAC
57666

Peach IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum in a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FBLGG
57667

Beta Lactoglobulin IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCOCN
57668

Coconut IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FVANG
57669

Vanilla IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FPIAP
57670

Pineapple IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FOLBG
57671

Olive Black IgG

Specimen Requirements: Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCABB
57672

Cabbage IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a

plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCRAB
57674

Crab IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCING
57676

Cinnamon IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum in a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FWATG
57677

Watermelon IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FSPNG
57678

Spinach IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FMTFG
57679

Mustard Food IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCAFG
57680

Cauliflower IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Specimen Volume: 0.5 mL Submission Container/tube: Plastic vial Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FSUNG
57681

Sunflower Seed IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood

in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FSESG
57682

Sesame Seed IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FGTEA
57684

Tea IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FLENG
57685

Lentil IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FPARG
57686

Parsley IgG

Specimen Requirements: Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCASH
57687

Cashew IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FPCFG
57688

Pecan Food IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FBTRG
57689

Beet Root IgG

Specimen Requirements: Specimen Type: Serum Container/Tube: Red Top Specimen Volume: 0.5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable.

Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FAVCG
57690

Avocado IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FABP2
57698

Allergic Bronchopulmonary Aspergillosis Panel II

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 1.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86331; 86001; 86003; 82785;

FIBUP
57703

Ibuprofen (Motrin, Advil, Nuprin), serum

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 1 mL sodium heparin plasma refrigerated in plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 1 mL of serum refrigerated in plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80329; ;

FFTIO
57708

Thiocyanate, Serum

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 1 mL sodium heparin plasma refrigerated in plastic vial. Serum Draw blood in a plain, red-top tube(s), serum gel tube is not acceptable. Spin down and send 1 mL of serum refrigerated in plastic vial.

Specimen Minimum Volume: 0.50 mL Does not allow for repeat testing

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 84430

FSLFU
57710

Sulfonylurea Screen, Urine

Specimen Requirements: Collection Container: Plastic urine container Specimen Volume: 5 mL Collection Instructions: Collect 5 mL random urine without preservative. Ship refrigerated in a plastic container.

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80377

FHOBG
57714

Venom Honey Bee IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCHPZ
57719

Chlorpromazine (Thorazine)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 1 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 1 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80342

FDXAP
57720

Dexedrine (Dextroamphetamine)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 5 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days

CPT Code Information: 80324

FFVOX
57731

Fluvoxamine (Luvox)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top sodium heparin tube(s), plasma gel tube is not acceptable. Spin down and send 3mL of plasma

refrigerated in a plastic vial. Serum Draw blood in a plain, red-top tube(s), serum gel tube is not acceptable. Spin down and send 3 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80332

FA1GP
57736

Alpha-1-Acid Glycoprotein

Specimen Requirements: Patient Preparation: Fasting: Overnight, preferred but not required Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days

CPT Code Information: 82985

FCNAB
57737

Chromatin (Nucleosomal) Antibody

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	4 days

CPT Code Information: 86235

FZOLP
57738

Zolpidem (Ambien), serum or plasma

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80368

FASQN
57740

Antidepressant Drug Profile, Quantitative, Urine

Specimen Requirements: Collection Container/Tube: Plastic preservative-free urine container Specimen Volume: 3 mL Collection Instructions: 1. Collect 3 mL from a random urine collection in a preservative free plastic urine container. 2. Send refrigerated.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 80333; 80337; 80369; ;

FBARS
57742

Barium, Serum

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a EDTA metal-free royal blue-top tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL metal-free EDTA plasma refrigerated in a plastic vial. Serum Draw blood in a metal-free royal blue-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL metal-free serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 83018

FMIRT
57749

Mirtazapine (Remeron)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80335

FMMM
57766

Mephedrone, MDPV and Methylone, Urine

Specimen Requirements: Container: Preservative-free plastic urine container Specimen volume: 10 mL Collection instructions collect a random urine specimen No preservative

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80307-single drug; 80371-(if appropriate);

FADDS
57772

Antidepressant Drug Screen, Qualitative

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Plasma Collection Container/Tube: Gray top (NaF/oxalate), green top (heparin), or lavender top (EDTA) (plasma gel/PST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Plasma Collection Instructions: 1. Centrifuge and aliquot 3 mL plasma into a plastic vial. 2. Send refrigerate. Specimen Type: Serum Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Serum Collection Instructions: 1. Centrifuge and aliquot 3 mL serum into a plastic vial. 2. Send refrigerate. Specimen Type: Urine Submission Container/Tube: Plastic preservative-free container Specimen Volume: 3 mL Collection Instructions: 1. Collect 3 mL from a random urine collection in a preservative-free plastic urine container. 2. Send refrigerated.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80333; 80337; 80369;

FWFHG
57799

Venom W-F Hornet IgG

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1.

Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCHYS
57806

Chymotrypsin, Stool

Specimen Requirements: Specimen Type: Random stool Container/Tube: Sterile leak proof stool container Specimen Volume: 1 g Collection Instructions: Collect 1 gm random stool in sterile leak proof container, ship refrigerate. Note: Dietary restrictions: Patients receiving pancreatic enzymes should discontinue taking the enzymes at least 5 days before the collection of the stool sample.

Specimen Minimum Volume: 0.5 gram

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Refrigerated (preferred)	14 days
	Frozen	30 days

CPT Code Information: 84311

FGGAG
57812

Ganglioside GD1a Antibody (IgG)

Specimen Requirements: Patient Preparation: Fasting: Overnight, preferred but not required Specimen Type: Serum Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collections Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 83520

FMACR
57817

Macroamylase

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 82150; ;

FFTPO
57822

Thrombopoietin (TPO)

Specimen Requirements: Specimen Type: Serum Container/Tube: Red or SST Specimen Volume: 1 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1 mL of serum frozen in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	30 days

CPT Code Information: 83520

FACEC
57824

Angiotensin Converting Enzyme, CSF

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: 1. Transfer 1 mL of spinal fluid to a sterile vial. 2. Send frozen. Note: Gadolinium contrast agents have been reported to inhibit ACE activity. Therefore, CSF containing gadolinium-based contrast agents should not be submitted to the laboratory for evaluation.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	180 days
	Refrigerated	7 days

CPT Code Information: 82164

FIL2M
57826

Interleukin 2, Serum

Specimen Requirements: Collection Container/Tube: Serum gel or red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Freeze within 30 minutes and send frozen. Note: Critical frozen. Separate specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	365 days

CPT Code Information: 83520

FOVAS
57836

Ovarian Antibody Screen with Reflex to Titer, IFA

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86255; 86256 (if appropriate);

FFPII
57850

Food Panel II IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001 X 19

FG4FI
57851

IgG4 Food Panel I

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001 X 10

FMT21
57852

MaterniT21 Plus

Specimen Requirements: **NOTE: Completed Sequenom Test Requisition form is required A Core Option must be marked on TRF under MaterniT 21 PLUS test If nothing indicated by client, mark option- Core (chr 21, 18, 13, sex) Preferred evacuated tube: (1)10 mL Streck tube kit (MCL supply number T715). Absolute minimum collection for analysis: (1) 10 mL in Streck tube Collection instructions: Draw 1 tube of blood, 10 mL in special Streck tube kit (MCL supply number T715). Ship ambient. REQUIRED: 1. Specimen MUST be received at MCL within 72 hours of collection. 2. Specimen collected NOT less than 9 weeks of gestation 3. Sequenom collection kit (MCL Supply T715) 4. Completed Sequenom Test Requisition form 5. Maternal Height (inches) 6. Maternal Weight (pounds) 7. Gestational Age (weeks) 8. Gestational Age (days) 9. Gestation (Number of fetuses) 10. Increased risk due to

Specimen Minimum Volume: 10 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
WB Streck	Ambient	7 days	Streck Black/Tan top

CPT Code Information: 81420

FHAM
57856

Human Anti-mouse Antibody (HAMA)

Specimen Requirements: Draw blood in a plain, red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum frozen in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen	90 days

CPT Code Information: 83520

FDMZ
57859

CNBP DNA Test (DM2)

Specimen Requirements: Specimen Type: Whole Blood Container/Tube: Lavender top (EDTA) Specimen volume: 8 mL Collection instructions: 1. Draw blood in a lavender top (EDTA) tube(s). 2.

Invert several times to mix. 3. Send ambient. Note: Collection date is required.

Specimen Minimum Volume: 6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	10 days
	Refrigerated	10 days

CPT Code Information: 81187; ;

FUNSF
57871

Fungitell, CSF

Specimen Requirements:

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 87449

FUNBW
57872

Fungitell, bronch wash

Specimen Requirements: Collect 1-3 mL Bronchial Wash in a sterile screw top tube, ship frozen.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bronchial Washing	Frozen (preferred)	30 days
	Refrigerated	7 days
	Ambient	4 days

CPT Code Information: 87449

FUNBL
57873

Fungitell, BAL

Specimen Requirements: Specimen Type: Bronchoalveolar lavage Container/Tube: Sterile container Specimen Volume: 1 to 3 mL Collection Instructions: 1. Collect 1 to 3 mL bronchoalveolar lavage (BAL) in a sterile container. 2. Send frozen

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Lavage	Frozen (preferred)	14 days
	Ambient	14 days
	Refrigerated	14 days

CPT Code Information: 87449

FFAG4
57875

Filaria Antibody (IgG4)

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86682

FMINT
57885

Mint (Mentha Piperita) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1.

Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FSTAB
57891

Stachybotrys chartarum/atra IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FANTI
57892

Anti-IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerate

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Ambient (preferred)	7 days
	Frozen	28 days
	Refrigerated	7 days

CPT Code Information: 83516

FLNDR
57895

Flounder (Bothidae/Pleuronectidae Fam) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FCURV
57898

Curvularia spicifera/Bipolaris IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FGFP2
57904

IgG4 Food Panel II

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001 x 9; ;

FROE
57907

Oak Red (Quercus rubra) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FAFE
57910

Aspergillus flavus IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FART
57913

Artichoke (Cynara scolymus) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FAMCE
57914

Cheese American IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FYOG
57915

Yogurt (Lactobacillus bulgaricus) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FIGE
57916

Fig (Ficus carica) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FPOM
57918

Pomegranate (Punica granatum) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FGPE
57919

Gelatin Porcine IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FRUB
57920

Rhubarb (Rheum rhaponticum) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1.

Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FJPE
57921

Jalapeno/Chipotle (Capsicum annuum) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FQUIN
57922

Quinoa (Chenopodium quinoa) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FMME
57924

Mahi Mahi IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FBFPI
57925

Bird Fancier's Precipitin Panel I

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerate

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86331 x10

FDME
57926

Duck Meat IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FFSPG
57927

Fish and Shellfish Panel IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001 x 12

FNGPG
57930

Nuts and Grains Panel IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001 x 17

FMPG
57931

Poultry and Meat Panel IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001 x 7; ;

FFPG
57932

Fruit Panel IgG

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001 x16

FRAD
57933

Radish (Raphanus sativus) IgE

Specimen Requirements: Specimen Type: Serum Collection Container/Tube: Preferred: Red Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FHORS
57934

Horseradish (Armoracia rusticana/A.lapathifolia) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FBEP
57935

Pea Black-Eyed/Cow Pea (Vigna sinensis) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FSCE
57936

Cheese Swiss IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FOPE
57938

Perch Ocean IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FRSE
57939

Red Snapper (Lutjanus spp) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FNECT
57941

Nectarine (Prunus spp) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FPOLE
57942

Pollock White (Pollachius virens) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FIOCA
57944

Tapioca IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FALPE
57945

Alfalfa (Medicago sativa) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FASPE
57947

Aspen (Populus tremuloides) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FHEAV
57949

Tree of Heaven (Ailanthus spp) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1.

Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FSHAG
57950

Hickory Shagbark (Carya ovata) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FHACK
57951

Hackberry (Celtis occidentalis) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FRCE
57952

Cedar Red (Juniperus virginiana) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FWJR
57953

Juniper Western (Juniperus occidentalis) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FWING
57955

Wingscale (Atriplex Canescens) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FWWE
57956

Hemp Western Water (Acnida tamariscina) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FSAG
57957

Sage (Artemisia spp.) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1.

Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FRDG
57959

Rhodotorula IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FEPI
57960

Epidermophyton floccosum IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FCRNS
57961

Smut Corn (Ustilago maydis) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FCKTF
57966

Cockatiel Feathers IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FPRTF
57967

Parrot Australian (Budgerigar) Feathers IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FORRT
57968

Orris Root (Iris florentina) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FGUMX
57974

Gum Xanthan IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1.

Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FBMBL
57975

Venom Bumble Bee (Bombus terrestrus) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

ZW246
57992

Miscellaneous Childrens Hospital of Colorado Testing

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FMETH
57996

Methaqualone Confirmation, Urine

Specimen Requirements: Container/Tube: Plastic, preservative-free urine container Specimen Volume: 20 mL Collection Instructions: 1. Collect 20 mL random urine without preservative. 2. Transfer into a preservative-free plastic urine container. 3. Ship refrigerate.

Specimen Minimum Volume: 10 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	10 days
	Frozen	396 days
	Ambient	72 hours

CPT Code Information: 80375

FOAKE
57999

Oak Live (Quercus virginiana) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FDLS
58007

Donath Landsteiner

Specimen Requirements:

Specimen Minimum Volume: Serum: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Ambient	72 hours

CPT Code Information: 86940; 86941;

FSFM
58015

Soluble Fibrin Monomer

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85366

FGAGM
58017

Ganglioside (Asialo-GM1, GM1, GM2, GD1a, GD1b, and GQ1b) Antibodies

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Type	Temperature	Time
Serum SST	Refrigerated (preferred)	14 days
	Frozen	365 days

CPT Code Information: 83516 x 6

FGHSP
58034

Gamma-Hydroxybutyric Acid (GHB), Serum/Plasma

Specimen Requirements: Submit only 1 of the following specimens: Serum Specimen Type: Serum Container/Tube: red-top tube(s) Specimen Volume: 5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 5 mL of serum refrigerated in a plastic vial. Min Vol: 1.2 mL Plasma Specimen Type: Plasma Container/Tube: green-top (sodium heparin) Specimen Volume: 5 mL Collection Instructions: Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 5 mL of sodium heparin plasma refrigerated in a plastic vial. Min Vol: 1.2 mL

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80307

FGHSU
58036

Gamma-Hydroxybutyric Acid (GHB), Urine

Specimen Requirements: Collect 10 mL random urine without preservatives. Ship refrigerated in a plastic container.

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80307

FSHPU
58038

Sedative Hypnotic Panel, Urine

Specimen Requirements: Collect 10 mL random urine without preservatives. Ship refrigerated in a plastic container.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80307

FVZGC
58045

Varicella-Zoster Virus Antibody, IgG, CSF

Specimen Requirements: Specimen Type: Spinal fluid (CSF) Container/Tube: Sterile plastic container Specimen Volume: 0.5 mL Collection Instructions: 1. Collect 0.5 mL CSF in sterile plastic container. 2. Ship refrigerated.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	365 days

CPT Code Information: 86787

FDCU
58048

Deoxypyridinoline Crosslinks, Urine

Specimen Requirements: Container/Tube: Plastic, 5-mL urine tube Specimen Volume: 3.5 mL Collection Instructions: 1. Collect a first morning urine. 2. No preservative. 3. Mix the specimen well and aliquot 3.5 mL of urine to a plastic urine tube. 4. Send frozen.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	90 days
	Refrigerated	7 days

CPT Code Information: 82523

ZW266
58067

Miscellaneous Machaon Diagnostics

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW278
58078

Miscellaneous University of Washington Medical Center-Clinical Immunology Lab

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to

the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW282
58088

Miscellaneous University of Washington Medical Center (UW Virology Dept of Lab Medicine)

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FFPG4
58090

Food Panel IgG4 (532)

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001 x 8; ;

ZW280
58092

Miscellaneous University of Washington Medical Center (Molecular Diagnosis Clinical Microbiology Lab)

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

PDGF
58102

PDGFB (22q13), Dermatofibrosarcoma Protuberans/Giant Cell Fibroblastoma, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. Blocks prepared with alternative fixation methods will be attempted but are less favorable for successful results 2. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Bone specimens that have been decalcified will be attempted for testing, but the success rate is approximately 50%. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 2 unstained Collection Instructions: Submit 2 consecutive unstained, positively charged, unbaked slides with 5 micron-thick sections of the tumor tissue and 1 slide stained with hematoxylin and eosin. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie,

double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271x2-DNA probe, each; each additional probe set (if appropriate); 88271x1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate);

USPF
58104

USP6 (17p13), Aneurysmal Bone Cyst and Nodular Fasciitis, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin stained and 3 unstained Collection Instructions: Submit 3 consecutive unstained, positively charged, unbaked slides with 5 micron-thick sections of the tumor tissue and 1 slide stained with hematoxylin and eosin. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271x2-DNA probe, each; each additional probe set (if appropriate); 88271x1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate);

MAMLF
58105

MAML2 (11q21) Rearrangement, Mucoepidermoid Carcinoma (MEC), FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271x2-DNA probe, each; each additional probe set (if appropriate); 88271x1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate);

METF
58123

MET (7q31), FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

FGF1F
58124

FGFR1 (8p11.2) Amplification, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

DBMD
58125

Duchenne/Becker Muscular Dystrophy, DMD Gene, Large Deletion/Duplication Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may

proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year /Ambient/ Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81161-DMD (dystrophin) (eg, Duchenne/Becker muscular dystrophy) deletion analysis and duplication analysis, if performed; 88233-Tissue culture, skin or solid tissue biopsy (if appropriate); 88235-Tissue culture for amniotic fluid (if appropriate); 88240-Cryopreservation (if appropriate); 81265-Comparative analysis using Short Tandem Repeat (STR) markers; patient and comparative specimen (eg, pre-transplant recipient and donor germline testing, post-transplant non-hematopoietic recipient germline [eg, buccal swab or other germline tissue sample] and donor testing, twin zygosity testing or maternal cell contamination of fetal cells (if appropriate);

HCCDD 58127 Hepatitis C Virus Antibody, Cadaveric or Hemolyzed Specimens, Symptomatic, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	28 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 86803; 86804 (if appropriate);

JAKXM
60025

JAK2 Exon 12 and Other Non-V617F Mutation Detection, Bone Marrow

Specimen Requirements: Container/Tube: Preferred: EDTA (lavender top) Acceptable: ACD (yellow top) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Bone Marrow	Refrigerated (preferred)	5 days	PURPLE OR PINK TOP/EDTA
	Ambient	5 days	PURPLE OR PINK TOP/EDTA

CPT Code Information: 0027U-JAK2 (Janus kinase 2) (eg, myeloproliferative disorder), exon 12 sequence and exon 13 sequence, if performed

RMALD
60029

Ident by MALDI-TOF Mass Spec (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87077

AMLPC
60078

Amylase, Pancreatic Cyst Fluid

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plain vial Specimen Volume: 1 mL Additional Information: A minimum of 0.5 mL is required for testing; specimens less than 0.5 mL may be rejected.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Pancreatic Cyst Fluid	Frozen (preferred)	30 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 82150

DOGD
60108

Dog Dander, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

COCOA
60112

Cacao/Cocoa, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

AAMSD
60200

Amino Acids, Maple Syrup Urine Disease Panel, Plasma

Specimen Requirements: Patient Preparation: Fasting: 4 hours, required; infants should have specimen collected before next feeding (2-3 hours without total parenteral nutrition if possible) Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Green top (sodium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Collect specimen and place on wet ice. Note: Thrombin-activated tubes should not be used for collection. 2. Centrifuge immediately or within 4 hours of collection if specimen is kept at refrigerated temperature. 3. Being careful to ensure that no buffy coat is transferred, aliquot plasma into a plastic vial and freeze.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	14 days

CPT Code Information: 82136

AAUCD
60202

Amino Acids, Urea Cycle Disorders Panel, Plasma

Specimen Requirements: Patient Preparation: Fasting: 4 hours, required; infants should have

specimen collected before next feeding (2-3 hours without total parenteral nutrition if possible) Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Green top (sodium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Collect specimen and place on wet ice. Note: Thrombin-activated tubes should not be used for collection. 2. Centrifuge immediately or within 4 hours of collection if the specimen is kept at refrigerated temperature. 3. Being careful to ensure that no buffy coat is transferred, aliquot plasma into a plastic vial and freeze.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	14 days

CPT Code Information: 82136

HBRP 60213 Histoplasma capsulatum/Blastomyces species, Molecular Detection, PCR, Varies

Specimen Requirements:

Specimen Minimum Volume: Body fluid or respiratory specimen: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	7 days

CPT Code Information: 87798 x 2

PF199 60230 Carbohydrate Antigen 19-9 (CA 19-9), Pleural Fluid

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Source: Pleural fluid, thoracentesis fluid Container/Tube: Plain, plastic, screw-top tube Specimen Volume: 2 mL

Specimen Minimum Volume: 0.5 mL (Samples <0.5 mL may be rejected)

Transport Temperature:

Specimen Type	Temperature	Time
Pleural Fluid	Frozen (preferred)	90 days
	Refrigerated	14 days
	Ambient	7 days

CPT Code Information: 86301

DASM5
60250

Drugs of Abuse Screen, Meconium 5

Specimen Requirements: Supplies: Stool container, Small (Random), 4 oz (T288) Container/Tube: Stool container Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: Collect entire random meconium specimen.

Specimen Minimum Volume: 0.45 g (approximately 0.5 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen (preferred)	21 days
	Refrigerated	21 days
	Ambient	72 hours

CPT Code Information: 80307; 80324 (if appropriate); 80359 (if appropriate); 80353 (if appropriate); 80361 (if appropriate); 80365 (if appropriate); 80349 (if appropriate); 83992 (if appropriate);

VMAR
60274

Vanillylmandelic Acid, Random, Urine

Specimen Requirements: Patient Preparation: Administration of L-dopa may falsely increase vanillylmandelic acid results. For 24 hours prior to specimen collection, the patient should not take L-dopa. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. Adjust the random urine pH to a level between 1 and 5 by adding 50% acetic acid or hydrochloric acid dropwise and checking the pH.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	180 days

CPT Code Information: 84585

HVAR
60275

Homovanillic Acid, Random, Urine

Specimen Requirements: Patient Preparation: Administration of L-dopa may falsely increase homovanillic acid results. For 24 hours prior to specimen collection, the patient should not take L-dopa. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. Adjust the urine pH to a level between 1 and 5 by adding 50% acetic acid or hydrochloric acid dropwise and checking the pH.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	180 days

CPT Code Information: 83150

LEFLU
60292

Leflunomide Metabolite (Teriflunomide), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: 1. Draw blood no sooner than 12 hours (trough value) after last dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Ambient (preferred)	28 days
	Frozen	28 days
	Refrigerated	28 days

CPT Code Information: 80193

COWB
60355

Cobalt, Blood

Specimen Requirements: ***This specimen container cannot be opened or used for any other testing before shipping.*** Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Metal Free EDTA 3 mL Tube (T989) Container/Tube: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (T989) (BD catalog no. 367777) Specimen Volume: 1 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83018

HV1CM
60357

HIV-1 and HIV-2 Antibody Screen for Hemolyzed Specimens, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 86703; G0432; 86701 (if appropriate); 86702 (if appropriate);

CARNS
60449

Carnitine, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	60 days
	Refrigerated	21 days
	Ambient	7 days

CPT Code Information: 82379

SHUR
60451

Schistosoma Exam, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 10 mL Collection Instructions: 1. Collect a random urine specimen. Preferred time of collection between the hours of 12 noon and 3 p.m. but not required. A 24-hour urine collection is also acceptable. 2. No preservative. Additional Information: A specimen volume of at least 10 mL is recommended for optimal recovery of Schistosoma species ova.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated	7 days

CPT Code Information: 87210; 87015;

PFAPE
60464

Fatty Acid Profile, Essential, Plasma

Specimen Requirements: Patient Preparation: 1. Fasting: a. For nutritional assessment: 12 hours,

required b. For patients with a suspected fatty acid oxidation disorder, prolonged fasting is contraindicated. Collect as close to the patient's next scheduled meal/feeding as possible. 2. Patient must not consume any alcohol for 24 hours before the specimen collection. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) or green top (lithium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	92 days
	Refrigerated	72 hours

CPT Code Information: 82725

PFAPC
60466

Fatty Acid Profile, Comprehensive (C8-C26), Plasma

Specimen Requirements: Patient Preparation: 1. Fasting: a. For nutritional assessment: 12 hours, required b. For patients with a suspected fatty acid oxidation disorder, prolonged fasting is contraindicated. Collect as close to the patient's next scheduled meal/feeding as possible. 2. Patient must not consume any alcohol for 24 hours before the specimen collection. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) or green top (lithium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	92 days
	Refrigerated	72 hours

CPT Code Information: 82725

POXP
60468

Fatty Acid Profile, Peroxisomal (C22-C26), Plasma

Specimen Requirements: Patient Preparation: 1. Fasting: 12 hours, required; Infants and small children should have specimen collected just before next feeding/meal 2. Patient must not consume any alcohol for 24 hours before the specimen is collected. Supplies: Sarstedt Aliquot Tube, 5 mL (T914)

Collection Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) or green top (lithium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL plasma Collection Instructions: Centrifuge and aliquot plasma into plastic vial.

Specimen Minimum Volume: Plasma: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	92 days
	Refrigerated	15 days

CPT Code Information: 82726

AAPD
60475

Amino Acids, Quantitative, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Specimen Volume: 2 mL Collection Instructions: Collect a random urine specimen.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	70 days
	Refrigerated	14 days

CPT Code Information: 82139

FFRWB
60477

Friedreich Ataxia, Frataxin, Quantitative, Blood

Specimen Requirements: Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium or lithium heparin) Specimen Volume: 2 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Frozen (preferred)	70 days
	Ambient	70 days
	Refrigerated	70 days

CPT Code Information: 83520

URNS
60515

Bacterial Culture, Aerobic, with Antimicrobial Susceptibilities, Urine

Specimen Requirements: Supplies: Boric Acid Urine Preservative Tube, 4 mL (T996) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Commercially available transport system intended for the collection and transport of urine samples for culture and sensitivity testing of bacteria (4 mL of lyophilized maintenance formula; BD Vacutainer C and S Preservative and BD Vacutainer C and S Boric Acid Sodium Borate/Formate) Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. Transfer 4 mL into the boric acid transport tube. 3. Send ambient in transport tube. Do not aliquot from transport tube. Additional Information: Aliquots from transport tube and frozen specimens are not acceptable. Specimen Stability Information: Ambient 72 hours

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Varies	

CPT Code Information: 87086-Bacterial Culture, Aerobic, Urine; 87077-Identification commercial kit (if appropriate); 87077-Ident by MALDI-TOF mass spec (if appropriate); 87077-Bacteria Identification (if appropriate); 87077-Additional Identification procedure (if appropriate); 87077-Identification Staphylococcus (if appropriate); 87077-Identification Streptococcus (if appropriate); 87147 x 1-3-Serologic agglut method 1 ident (if appropriate); 87147-Serologic agglut method 2 ident (if appropriate); 87147 x 4-Serologic agglut method 3 ident (if appropriate); 87147 x 2-6-Serologic Agglut Method 4 Ident (if appropriate); 87153-Aerobe ident by sequencing (if appropriate); 87150-Identification by PCR (if appropriate); 87185-Beta lactamase (if appropriate); 87186-Antimicrobial Susceptibility, Aerobic Bacteria, MIC-per organism for routine battery (if appropriate); 87181-Susceptibility per drug and per organism for drugs not in routine battery (if appropriate); 87150-mec A PCR (if appropriate); 87150 x 5 Carbapenem resistance genes (if appropriate);

ANAES
60519

Bacterial Culture, Anaerobic with Antimicrobial Susceptibilities, Varies

Specimen Requirements: Supplies: Anaerobic Transport Tube (T588) Acceptable Sources: Deep tissues, sterile body fluids, abscesses, percutaneous transtracheal aspirates, suprapubic aspirations, or wounds Collection Instructions: Specimen should be obtained by using a needle and syringe from a source not normally colonized by anaerobes.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	72 hours

CPT Code Information: 87075-Bacterial Culture, Anaerobic; 87076-Anaerobe Ident (if appropriate); 87076-Id MALDI-TOF Mass Spec Anaerobe (if appropriate); 87153-Anaerobe Ident by Sequencing (if appropriate); 87150-Identification by PCR (if appropriate); 87176-Tissue Processing (if appropriate); 87185-Beta Lactamase (if appropriate); 87186-Antimicrobial Susceptibility, Anaerobic Bacteria, MIC (if appropriate); 87181-Anaerobe Susceptibility per agent (if appropriate); 87150-mecA PCR (if appropriate);

B2MC
60546

Beta-2-Microglobulin (Beta-2-M), Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: Send spinal fluid from collection vial 1.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82232

APCRR
60547

Activated Protein C Resistance V, with Reflex to Factor V Leiden, Blood and Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL; Whole blood: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days
Whole blood	Ambient (preferred)	14 days
	Frozen	14 days
	Refrigerated	14 days

CPT Code Information: 85307

DASM4
60553

Drugs of Abuse Screen, Meconium 4

Specimen Requirements: Supplies: Stool container, Small (Random), 4 oz (T288) Container/Tube: Stool container Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: Collect entire random meconium specimen.

Specimen Minimum Volume: 0.45 g (approximately 0.5 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen (preferred)	21 days
	Refrigerated	21 days
	Ambient	72 hours

CPT Code Information: 80307; 80324 (if appropriate); 80359 (if appropriate); 80353 (if appropriate); 80361 (if appropriate); 80365 (if appropriate); 80349 (if appropriate);

F822B
60554

Hemophilia A F8 Gene, Intron 22 Inversion Known Mutation, Blood

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogeneic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) or blue top (3.2% sodium citrate) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable if approved by the laboratory. See Additional Information. Additional Information: 1. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 2. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are performed to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal blood specimen under a separate order

number.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	7 days
	Frozen	7 days
	Refrigerated	7 days

CPT Code Information: 81403

F81B 60555 Hemophilia A F8 Gene, Intron 1 Inversion Known Mutation, Blood

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogeneic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) or blue top (3.2% sodium citrate) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable if approved by the laboratory. See Additional Information. Additional Information: 1. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 2. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are performed to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal blood specimen under a separate order number.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	7 days
	Frozen	7 days
	Refrigerated	7 days

CPT Code Information: 81403

SEMB
60556

Semen Analysis with Strict Morphology, Semen

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Semen	Ambient	36 hours

CPT Code Information: 89310-Semen Analysis; 89398-Strict Criteria Sperm Morphology; If both components performed,; 89322-Semen Analysis with Strict Morphology;

CFRCS
60563

Bacterial Culture, Cystic Fibrosis with Antimicrobial Susceptibilities, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Sputum, expectorated or induced Patient Preparation: Have the patient brush their teeth or gargle with water immediately before specimen collection. This reduces the number of contaminating oropharyngeal bacteria. Container/Tube: Sterile container Specimen Volume: Entire collection Acceptable: Specimen Type: Bronchial aspirate or washing, sinus aspirate, bronchoalveolar lavage, endotracheal, or tracheal Container/Tube: Sterile container Specimen Volume: Entire collection Specimen Type: Throat swab Supplies: Culturette (BBL Culture Swab) (T092) BD E-Swab (T853) Container/Tube: Culture transport swab (Dacron or rayon swab with aluminum or plastic shaft with either Stuart or Amies liquid medium), or ESwab Specimen Volume: Entire collection

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated	48 hours

CPT Code Information: 87070-Bacterial, Culture, cystic fibrosis, respiratory; 87077-Identification commercial kit (if appropriate); 87077-Ident by MALDI-TOF mass spec (if appropriate); 87077-Bacteria Identification (if appropriate); 87077-Additional Identification procedure (if appropriate); 87077-Identification Staphylococcus (if appropriate); 87077-Identification Streptococcus (if appropriate); 87147 x 1-3-Serologic agglut method 1 ident (if appropriate); 87147-Serologic agglut method 2 ident (if appropriate); 87147 x 4-Serologic agglut method 3 ident (if appropriate); 87147 x 2-6-Serologic Agglut Method 4 Ident (if appropriate); 87153-Aerobe ident by sequencing (if appropriate); 87150-Identification by PCR (if appropriate); 87185-Beta lactamase (if appropriate); 87186-Antimicrobial Susceptibility, Aerobic Bacteria, MIC-per organism for routine battery (if appropriate); 87181-Susceptibility per drug and per organism for drugs not in routine battery (if appropriate); 87150-mec A PCR (if appropriate);

LPMGF
60591

Lymphocyte Proliferation to Mitogens, Blood

Specimen Requirements: Supplies: Ambient Shipping Box-Critical Specimens Only (T668) Container/Tube: Green top (sodium heparin) Specimen Volume: 20 mL See tables for information on recommended volume based on absolute lymphocyte count Pediatric Volume: <3 months: 1 mL 3-24 months: 3 mL 25 months-18 years: 5 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimen collection be performed at the same time of day. Table. Blood Volume Recommendations Based on Absolute Lymphocyte Count (ALC) Mitogen only ALC x 10(9)/L Blood volume for minimum phytohemagglutinin (PHA) only Blood volume for minimum PHA and pokeweed mitogen (PWM) Blood volume for full assay <0.5 >6.5 mL >8.5 mL >22 mL 0.5-1.0 6.5 mL 8.5 mL 22 mL 1.1-1.5 3.0 mL 4.0 mL 10 mL 1.6-2.0 2.0 mL 2.5 mL 7 mL 2.1-3.0 1.5 mL 2.0 mL 6 mL >3.1 1.0 mL 1.5 mL 4 mL 4.1-5.0 1.0 mL 1.0 mL 3 mL >5.0 1.0 mL 1.0 mL 2 mL Mitogen and antigen ALC x 10(9)/L Blood volume for minimum of each assay Blood volume for full assay <0.5 >28 mL >60 mL 0.5-1.0 28 mL 60 mL 1.1-1.5 12 mL 30 mL 1.6-2.0 8.5 mL 20 mL 2.1-3.0 6.5 mL 15 mL 3.1-4.0 4.5 mL 10 mL 4.1-5.0 3.5 mL 8 mL >5.0 2.5 mL 6 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
WB Sodium Heparin	Ambient	48 hours	GREEN TOP/HEP

CPT Code Information: 86353; 86353 (if appropriate); ;

LPAGF
60592

Lymphocyte Proliferation to Antigens, Blood

Specimen Requirements: Supplies: Ambient Shipping Box-Critical Specimens Only (T668) Container/Tube: Green top (sodium heparin) Specimen Volume: 20 mL See tables for information on recommended volume based on absolute lymphocyte count Pediatric Volume: <3 months: 1 mL 3-24 months: 3 mL 25 months-18 years: 5 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimen collection be performed at the same time of day. Table. Blood Volume Recommendations Based on Absolute Lymphocyte Count (ALC) Antigen only ALC x 10(9)/L Blood volume for minimum Candida albicans (CA) and tetanus toxoid (TT) Only Blood volume for full assay <0.5 >18.5 mL >40 mL 0.5-1.0 18.5 mL 40 mL 1.1-1.5 8.5 mL 20 mL 1.6-2.0 6.0 mL 12 mL 2.1-3.0 4.5 mL 10 mL 3.1-4.0 3.0 mL 6 mL 4.1-5.0 2.5 mL 5 mL >5.0 2.0 mL 4 mL Mitogen and antigen ALC x 10(9)/L Blood volume for minimum of each assay Blood volume for full assay <0.5 >28 mL >60 mL 0.5-1.0 28 mL 60 mL 1.1-1.5 12 mL 30 mL 1.6-2.0 8.5 mL 20 mL 2.1-3.0 6.5 mL 15 mL 3.1-4.0 4.5 mL 10 mL 4.1-5.0 3.5 mL 8 mL >5.0 2.5 mL 6 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
WB Sodium Heparin	Ambient	48 hours	GREEN TOP/HEP

CPT Code Information: 86353; 86353 (if appropriate); ;

PQNRU
60597

Porphyrins, Quantitative, Random, Urine

Specimen Requirements: Patient Preparation: For at least 24 hours before specimen collection, patient must not consume any alcohol. Supplies: Urine Container - Amber, 60 mL (T596) Container/Tube: 60-mL Amber urine container Specimen Volume: 20 to 50 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative3. Specimens should be protected from light and frozen immediately following collection.

Specimen Minimum Volume: 15 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Urine	Frozen	72 hours	LIGHT PROTECTED

CPT Code Information: 84110-Porphobilinogen, quantitative; 84120-Porphyrins, quantitation and fractionation; 82135- ALA Delta Random Urine;

QNKS
60616

Natural Killer (NK)/Natural Killer T-Cell Subsets, Quantitative, Blood

Specimen Requirements: Container/Tube: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimens are collected at the same time of day.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
WB Sodium Heparin	Ambient	30 hours	GREEN TOP/HEP

CPT Code Information: 86356 x3; 86359; 86357;

ACRNS
60644

Acylcarnitines, Quantitative, Serum

Specimen Requirements: Patient Preparation: Collect specimen just before scheduled meal or feeding. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.1 mL Serum Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.04 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	60 days
	Refrigerated	21 days
	Ambient	72 hours

CPT Code Information: 82017

MHRP
60756

Metamycoplasma hominis, Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction (PCR) requires the specimen to be processed in an environment in which contamination of the specimen by Mycoplasma hominis DNA is not likely. Submit only 1 of the following specimens: Specimen Type: Swab Supplies: -Culturette (BBL Culture Swab) (T092) -BD E-Swab (T853) -M4-RT (T605) Sources: Vaginal, cervix, urethra, urogenital, chest/mediastinal; bronchus or lung (donor swab); or upper respiratory sources (only infants <3 months: nasopharynx, nose, throat) Container/Tube: Preferred: Culture swab transport system (Dacron or rayon swab with aluminum or plastic shaft with either Stuart or Amies liquid medium) Acceptable: Swab in transport media: M4, M4-RT, M5, M6, universal transport media, or ESwab Specimen Volume: 1 swab Collection Instructions: Vaginal: 1. Collect specimen by swabbing back and forth over mucosa surface to maximize recovery of cells. 2. Place swab back into swab cylinder. Urethra or cervical: 1. Collect specimen by inserting swab 1 to 3 cm and rotating 360 degrees. 2. Place swab back into swab cylinder. Wound: 1. Collect specimen by swabbing back and forth over wound surface to maximize recovery of cells. 2. Place swab back into swab cylinder. Specimen Type: Fluid Sources: Pelvic, peritoneal, amniotic, prostatic secretions, semen, reproductive drainage or fluid, pleural/chest, chest tube, pericardial Container/Tube: Sterile container Specimen Volume: 1 to 2 mL Specimen Type: Respiratory Sources: sputum, tracheal secretions, bronchial washings, bronchoalveolar lavage, lung; or nasal washings (Note: Nasal washings may only be submitted for infants <3 months of age.) Container/Tube: Sterile container Specimen Volume: 1 to 2 mL Specimen Type: Synovial fluid Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Pink top (EDTA), royal blue top (EDTA), sterile vial containing EDTA-derived aliquot, red clot tube (no anticoagulant), or sterile container Specimen Volume: 0.5 mL Collection Instructions: Send specimen in original tube. Specimen Type: Urine (first void), kidney/bladder stone, or ureter Container/Tube: Sterile container Specimen Volume: 10 mL or entire specimen Collection instructions: Urine first void: Specimen can be collected at any time during the day. The patient should not have urinated for at least 1 hour prior to specimen collection. The first voided portion is the initial 20 to 30 mL of the urine stream obtained without cleaning the external urethra. Specimen Type: Tissue Sources: Placenta, products of conception, urogenital, respiratory, bronchus, chest/mediastinal, bone, spine, or joint Container/Tube: Sterile container Specimen Volume: 5 mm(3) Collection Instructions: 1. Collect fresh tissue specimen. 2. Submit fresh tissue only, do not add

fluid to tissue 3. Refrigerate or freeze specimen.

Specimen Minimum Volume: Fluid: 1 mL Urine, first void: 2 mL Swab: 1 swab Tissue: 5 mm(3)

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

URRP
60758

Ureaplasma species, Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Ureaplasma DNA is not likely. Submit only 1 of the following specimens: Specimen Type: Swab Supplies: -Culturette (BBL Culture Swab) (T092) -BD E-Swab (T853) -M4-RT (T605) Sources: Vaginal, cervix, urethra, urogenital, chest/mediastinal; bronchus or lung (donor swab), or upper respiratory sources Sources for infants younger than 3 months: Nasopharynx, nose, throat Container/Tube: Preferred: Culture swab transport system (Dacron or rayon swab with aluminum or plastic shaft with either Stuart or Amies liquid medium) Acceptable: Swab in transport media: M4, M4-RT, M5, M6, universal transport media, or ESwab Specimen Volume: 1 Swab Collection Instructions: Vaginal: 1. Collect specimen by swabbing back and forth over mucosa surface to maximize recovery of cells. 2. Place swab back into swab cylinder. Urethra or cervical: 1. Collect specimen by inserting swab 1 to 3 cm and rotating 360 degrees. 2. Place swab back into swab cylinder. Wound: 1. Collect specimen by swabbing back and forth over wound surface to maximize recovery of cells. 2. Place swab back into swab cylinder. Specimen Type: Fluid Sources: Pelvic, peritoneal, amniotic, prostatic secretions, semen, reproductive drainage or fluid, pleural/chest, chest tube, pericardial Container/Tube: Sterile container Specimen Volume: 1 to 2 mL Specimen Type: Respiratory Sources: Sputum, tracheal secretions, bronchial washings, bronchoalveolar lavage, lung fluid Sources for infants younger than 3 months: Nasal washings (not acceptable for older patients)) Container/Tube: Sterile container Specimen Volume: 1 to 2 mL Specimen Type: Synovial fluid Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Pink top (EDTA), royal blue top (EDTA), sterile vial containing EDTA-derived aliquot, red top (no anticoagulant), or sterile container Specimen Volume: 1 mL Collection Instructions: Send fluid specimen in original tube. Specimen Type: Urine-first void, kidney/bladder stone, or ureter Container/Tube: Sterile container Specimen Volume: 10 mL or entire specimen Collection instructions: Urine first void: 1. Specimen can be collected at any time during the day. The patient should not have urinated for at least 1 hour prior to specimen collection. 2. The first voided portion is the initial 20 to 30 mL of the urine stream obtained without cleaning the external urethra. Specimen Type: Tissue Sources: Placenta, products of conception, urogenital, respiratory, bronchus, chest/mediastinal, bone, spine, or joint Container/Tube: Sterile container Specimen Volume: 5 mm(3) Collection Instructions: 1. Collect fresh tissue specimen. 2. Submit fresh tissue only, do not add fluid to tissue 3. Refrigerate or freeze specimen.

Specimen Minimum Volume: Urine-first void: 2 mL; All other specimens: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798 x 2; 87999 (if appropriate for government payers);

RTBSP 60768 Identification Mycobacterium tuberculosis Complex Speciation, PCR (Bill Only)

Specimen Requirements: **For billing purposes only

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87150

RMALM 60778 Id MALDI-TOF Mass Spec AFB (Bill Only)

Specimen Requirements: **For billing purposes only

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87118

ASPBA 61009 Aspergillus Antigen, Bronchoalveolar Lavage

Specimen Requirements: Container/Tube: Sterile, leak-proof container Note: Specimen trap collection containers (with suction catheters attached) will be rejected due to high-risk of leakage and contamination upon opening. Avoid use of these for bronchoalveolar lavage specimens. Specimen Volume: 2 mL Additional Information: 1. If specimen transfer into an acceptable sterile container is necessary, perform specimen transfer in a biosafety cabinet. 2. For staff safety, the following double bagging of samples must be followed: -a. Place closed specimen container in an individual, sealed 4 x 6 Biohazard Bag (T877). -b. Place Biohazard bag in a Refrigerate Specimen Bag (T229). -c. Multiple sealed

Biohazard bags can go into a single transfer bag.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Lavage	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 87305

LPLFX
61114

Lymphoplasmacytic Lymphoma/Waldenstrom Macroglobulinemia, MYD88 L265P with Reflex to CXCR4, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD), green top (sodium heparin) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 10 days/Refrigerated 10 days Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD), green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Stability Information: Ambient (preferred) 10 days /Refrigerated 10 days Specimen Type: Paraffin-embedded tissue Container/ Tube: Paraffin block Collection Instructions: 1. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. 2. Indicate specimen source. Specimen Stability Information: Ambient Additional Information: If the quality of the biopsy specimen is poor, testing should not be ordered. Testing may be canceled if DNA requirements are inadequate. Acceptable: Specimen Type: Tissue slide Slides: 20 unstained slides Container/ Tube: Transport in plastic slide holders. Collection Instructions: 1. Send 20 unstained, nonbaked slides with 5-micron thick sections of tissue. 2. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. 3. Indicate specimen source. Specimen Stability Information: Ambient Additional Information: Testing may be canceled if resultant extracted DNA does not meet concentration requirements. Specimen Type: Frozen tissue Container/Tube: Plastic container Specimen Volume: 100 mg Collection Instructions: 1. Freeze tissue within 1 hour of collection 2. Indicate specimen source. Specimen Stability Information: Frozen Specimen Type: Extracted DNA Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of DNA on label. Specimen Stability Information: Frozen (preferred)/Refrigerated/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood, bone marrow aspirate: 0.5 mL; Frozen tissue: 50 mg; Extracted DNA: 50 mcL at 20 ng/mcL; Tissue slides: 10 unstained slides

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	10 days

CPT Code Information: 81305

WASEQ
61362

Alpha Globin Gene Sequencing, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD), green top (sodium heparin) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix whole blood. 2. Send whole blood specimen in the original tube. Do not aliquot Specimen Stability Information: Refrigerate 30 days(preferred)/Ambient 14 days Specimen Type: Extracted DNA from whole blood Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted from whole blood within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of the DNA. Specimen Stability Information: Frozen (preferred) 1 year/Refrigerate/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood: 1 mL; Extracted DNA: 50 mcL at 50 ng/mcL concentration

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81259-HBA1/HBA2; full sequence

TPPA
61480

Syphilis Antibody, Treponema pallidum Particle Agglutination, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86780

PTHFN
61526

Parathyroid Hormone, Fine-Needle Aspiration Biopsy (FNAB)-Needle Wash

Specimen Requirements:

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fine Needle Wash	Frozen (preferred)	30 days
	Refrigerated	4 hours

CPT Code Information: 83970

CATLN
61527

Calcitonin, Fine-Needle Aspiration Biopsy Needle Wash, Lymph Node

Specimen Requirements: Patient Preparation: For 12 hours before this procedure do not take multivitamins or dietary supplements containing biotin (vitamin B7), which is commonly found in hair, skin, and nail supplements and multivitamins. Container/Tube: Plain, plastic, screw-top tube Specimen Volume: 1 to 1.5 mL Collection Instructions: 1. Needle wash specimens for analysis should be collected in conjunction with cytology specimens. 2. Have saline available prior to start of procedure. Saline is the only acceptable solution for needle washings. 3. After each fine-needle aspiration biopsy (FNAB) has been collected and the material in the needle has been expelled onto a slide for cytologic analysis, attach the used FNAB needle to an empty syringe. 4. Withdraw between 0.10 mL and 0.25 mL of saline up through the needle until the saline starts to fill the hub of the needle or end of the syringe. 5. Expel this fluid back through the needle into a separate tube. This is the needle washing used for analysis. 6. Repeat steps 2 through 4 for each needle pass of the same biopsied site and empty into the same tube, accumulating a total of 0.5 mL to 1.5 mL of fluid to send to the laboratory. (If more than 1 site is biopsied, see Additional Information) 7. Inspect specimen for visible blood or tissue contamination: a. If bloody, centrifuge specimen and transfer supernatant to a new plastic aliquot tube (5-mL standard tube) to send to laboratory. The supernatant, not the cellular material, is used for analysis. b. If specimen is clear, centrifugation is not necessary. 8. Freeze within 2 to 4 hours of collection. Additional Information: 1. If more than 1 site is biopsied, each washing material should be submitted in a separate tube and under a different order number. 2. A minimum of 0.5 mL is required for testing; however, the total collection

volume should not exceed 1.5 mL. Sample volumes outside these parameters may be rejected. 3. Do not send saline control. This test has been validated to rule-out saline matrix effect.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fine Needle Wash	Frozen (preferred)	7 days
	Refrigerated	4 hours

CPT Code Information: 82308

CEAPT
61528

Carcinoembryonic Antigen (CEA), Peritoneal Fluid

Specimen Requirements: Sources: Peritoneal, abdominal, ascites, paracentesis fluid (peritoneal washings are not acceptable) Container/Tube: Plain, plastic, screw top tube Specimen Volume: 2 mL

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Peritoneal	Frozen (preferred)	90 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 82378

199PT
61530

Carbohydrate Antigen 19-9 (CA 19-9), Peritoneal Fluid

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Sources: Peritoneal, abdominal, ascites, paracentesis fluid (peritoneal washings are not acceptable) Container/Tube: Plain, plastic, screw-top tube Specimen Volume: 2 mL

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Peritoneal	Frozen (preferred)	90 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 86301

AFPPT
61534

Alpha-Fetoprotein (AFP), Peritoneal Fluid

Specimen Requirements: Sources: Peritoneal, abdominal, ascites, paracentesis (peritoneal washings are not acceptable) Container/Tube: Plain, plastic, screw-top tube Specimen Volume: 2 mL

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Peritoneal	Frozen (preferred)	90 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 86316

ALAUR
61547

Aminolevulinic Acid, Urine

Specimen Requirements: Patient Preparation: Patient must not consume any alcohol for at least 24 hours before specimen collection. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	45 days

CPT Code Information: 82135

CTRNA
61551

Chlamydia trachomatis, Nucleic Acid Amplification, Varies

Specimen Requirements:

Specimen Minimum Volume: Urine: 2 mL; Endocervical/Cervix in PreservCyt or Swab specimens: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information: 87491

GCRNA
61552

Neisseria gonorrhoeae, Nucleic Acid Amplification, Varies

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information: 87591

CGRNA
61553

Chlamydia trachomatis and Neisseria gonorrhoeae, Nucleic Acid Amplification, Varies

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information: 87494

MCRNA
61554

Chlamydia trachomatis, Miscellaneous Sites, Nucleic Acid Amplification, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information: 87491

FACT
61620

Filamentous-Actin (F-actin) Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83516

MGRNA
61646

Neisseria gonorrhoeae, Miscellaneous Sites, Nucleic Acid Amplification, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information: 87591

PCPRO
61654

Plasma Cell DNA Content and Proliferation, Bone Marrow

Specimen Requirements: Specimen Type: Redirected bone marrow Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 4 mL Specimen Stability Information: 3 days

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88182-Flow cytometry, cell cycle or DNA analysis; 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker; 88185 x 5-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each); 88187-Flow cytometry interpretation, 2 to 8 Markers (added as FCINT);

PINP
61695

Procollagen I Intact N-Terminal, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection

Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	180 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 83519

BHCG
61718

Beta-Human Chorionic Gonadotropin, Quantitative, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 84702

OXYSX
61727

Oxycodone Screen, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain-of-Custody Kit containing the specimen containers, seals, and documentation is required. Specimen Volume: 20 mL Collection Instructions: Collect a random specimen without preservative in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 80307

OXYCX
61728

Oxycodone with Metabolite Confirmation, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain of custody kit containing the specimen containers, seals, and documentation is required. Specimen Volume: 5 mL Collection Instructions: Collect urine specimen in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain of custody testing.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: G0480; 80365 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

TVRNA
61755

Trichomonas vaginalis, Nucleic Acid Amplification, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Frozen	180 days	APTIMA VIAL
	Ambient	APTIMA VIAL	

CPT Code Information: 87661

MTRNA
61756

Trichomonas vaginalis, Nucleic Acid Amplification, Varies

Specimen Requirements: This test should only be performed in men. Submit only 1 of the following specimens: Specimen Type: Post-prostatic massage fluid (VBIII) Supplies: Aptima Urine Transport Tube (T582) Container/Tube: Aptima Urine Specimen Transport Tube Specimen Volume: 15 to 20 mL Collection Instructions: 1. Patient should not have urinated for at least 1 hour prior to specimen collection. 2. Patient should void a small amount of urine prior to prostatic massage. Pre-massage urine can be discarded or submitted for other testing as applicable. 3. Patient then ceases voiding and a prostatic massage is performed by the urologist or other health care professional. 4. Collect post-massage fluid into a sterile, plastic, preservative-free container. 5. Transfer 2 mL of post-massage fluid specimen into the Aptima urine specimen transport tube using the disposable pipette provided within 24 hours of collection. The correct volume of fluid has been added when the fluid level is between the black fill lines on the Aptima urine transport tube. Specimen Type: Urethral (male only) Supplies: Aptima Unisex Swab Collection Kit (T583) Container/Tube: Aptima Unisex Swab Specimen Volume: Swab Collection Instructions: 1. Urethral specimens must be collected using an Aptima Unisex Swab Collection kit. 2. Patient should not have urinated for at least 1 hour prior to collection. 3. With a rotating movement, insert swab (blue shaft) 2 to 4 cm into urethra. 4. Once inserted, rotate blue swab gently at least 1 full rotation using sufficient pressure to ensure swab comes into contact with all urethral surfaces. Allow blue swab to remain inserted for 2 to 3 seconds. 5. Place blue swab in the Aptima transport tube provided in collection kit. 6. Snap off blue swab at score line so it fits into closed tube. 7. Cap tube securely and label tube with patient's entire name and collection date and time.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	30 days	APTIMA VIAL
	Ambient	30 days	APTIMA VIAL

CPT Code Information: 87661

LPCBS
61766

Lysophosphatidylcholines, LC MS/MS, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493)

Container/Tube: Preferred: Blood Spot Collection Card Acceptable: PerkinElmer 226 filter paper, Munktell filter paper, Whatman Protein Saver 903 Paper, local newborn screening card, or blood collected in tubes containing ACD or EDTA, and then spotted and dried on filter paper Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Completely fill at least 2 circles on the filter paper card (approximately 100 microliters blood per circle). 3. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions. 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800.

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	90 days	FILTER PAPER
	Frozen	90 days	FILTER PAPER
	Ambient	28 days	FILTER PAPER

CPT Code Information: 82542

A1ALC
61767

Alpha-1-Antitrypsin Proteotype S/Z, LC-MS/MS, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.25 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82103; 82542; 82104 (if appropriate);

TALDO
61843

Polyols, Quantitative, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Specimen Volume: 2 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 82542

DCP
61844

Des-Gamma-Carboxy Prothrombin, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Refrigerated	7 days
	Ambient	72 hours

CPT Code Information: 83951

MMRV
61853

Measles, Mumps, Rubella, and Varicella (MMRV) Immune Status Profile, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Instructions: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86735; 86762; 86765; 86787;

MMPGM
61854

Mumps Virus Antibody, IgM and IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86735-Mumps, IgG; 86735-Mumps, IgM;

VZGM
61856

Varicella-Zoster Antibody, IgM and IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86787 x2

PNPAB
61881

Paraneoplastic Pemphigus Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 86255

HEVML
61903

Hepatitis E Virus IgM Antibody Confirmation, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	
	Refrigerated	7 days

CPT Code Information: 86790

RPR1
62046

Respiratory Profile, Region 1, North Atlantic (CT, MA, ME, NJ, NH, NY, PA, RI, VT), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.8 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785; 86003 x 25;

RPR2 62047 Respiratory Profile, Region 2, Mid-Atlantic (DC, DE, MD, NC, VA), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 23-Each individual allergen;

RPR3 62048 Respiratory Profile, Region 3, South Atlantic (GA, N.FA, SC), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 22-Each individual allergen;

RPR4
62049

Respiratory Profile, Region 4, Subtropic Florida (Florida S. of Orlando), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 22-Each individual allergen;

RPR5
62050

Respiratory Profile, Region 5, Ohio Valley (IN, KY, OH, TN, WV), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 26-Each individual allergen ;

RPR6 62051 Respiratory Profile, Region 6, South Central (AL, AR, LA, MS), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 22-Each individual allergen ;

RPR7 62052 Respiratory Profile, Region 7, Northern Midwest (MI, MN, WI), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 23-Each individual allergen;

RPR8 62053 Respiratory Profile, Region 8, Central Midwest (IA, IL, MO), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection

Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.55 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 25-Each individual allergen ;

RPR9
62054

Respiratory Profile, Region 9, Great Plains (KS, ND, NE, SD), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 22-Each individual allergen;

RPR10
62056

Respiratory Profile, Region 10, Southwestern Grasslands (OK, TX), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.55 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 25 Each individual allergen;

RPR11
62057

Respiratory Profile, Region 11, Rocky Mountain (AZ [Mt]; CO; ID [Mt]; NM, UT [Mt]; WY), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 24-Each individual allergen;

RPR12
62058

Respiratory Profile, Region 12, Arid Southwest (Southern AZ Desert, Southern CA Desert), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 22-Each individual allergen;

RPR13 62059 Respiratory Profile, Region 13, Southern Coastal California, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 24-Each individual allergen;

RPR14 62060 Respiratory Profile, Region 14, Central California, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 23-Each individual allergen;

RPR15 62061 Respiratory Profile, Region 15, Intermountain West (Southern ID, NV), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial

Specimen Volume: 1.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 22-Each individual allergen;

RPR16
62062

Respiratory Profile, Region 16, Inland Northwest (OR, Central and Eastern WA), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 21-Each individual allergen;

RPR17
62063

Respiratory Profile, Region 17, Pacific Northwest (Northwestern CA, Western OR, WA), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 23-Each individual allergen;

RPR18
62064

Respiratory Profile, Region 18, Alaska, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.3 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 15-Each individual allergen;

RPR19
62065

Respiratory Profile, Region 19, Puerto Rico, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 82785-IgE; 86003 x 21-Each individual allergen;

ROGM
62066

Measles (Rubeola) Virus Antibody, IgM and IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86765 x2

CLFA
62074

Cryptococcus Antigen Screen with Titer, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: Submit specimen from collection vial 2 (preferred), 3, or 4.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 87899-Cryptococcus screen; 87899-Cryptococcus titer (if appropriate);

SLFA
62075

Cryptococcus Antigen Screen with Titer, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 87899

CLFAT
62076

Cryptococcus Antigen Titer, Lateral Flow Assay, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 0.5 mL Collection Instructions: Submit specimen from collection vial 2 (preferred), 3, or 4.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 87899

SLFAT
62077

Cryptococcus Antigen Titer, Lateral Flow Assay, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 87899

COXIS
62079

Coccidioides Antibody Screen with Reflex, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86635; 86635 x3 (if appropriate);

WBSEQ
62128

Beta Globin Gene Sequencing, Varies

Specimen Requirements: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD), green top (sodium heparin) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix whole blood. 2. Send whole blood specimen in the original tube. Do not aliquot. Specimen Stability Information: Refrigerate 30 days(preferred)/Ambient 14 days Specimen Type: Extracted DNA from whole blood Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted from whole blood within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of the DNA. Specimen Stability Information: Frozen (preferred) 1 year/Refrigerate/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood: 1 mL; Extracted DNA: 50 mcL at 50 ng/mcL concentration

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81364-HBB (hemoglobin, beta) full sequence

HE4
62137

Human Epididymis Protein 4, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	84 days
	Refrigerated	7 days

CPT Code Information: 86305

PLINK
62139

Paroxysmal Nocturnal Hemoglobinuria, PI-Linked Antigen, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) Specimen Volume: 2.6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	72 hours
	Refrigerated	72 hours

CPT Code Information: 88184-Flow cytometry, RBC x 1; 88184-Flow cytometry, WBC x 1; 88185-Flow cytometry, additional marker (each), RBC x 1; 88185-Flow cytometry, additional marker (each), WBC x 6; 88188-Flow Cytometry Interpretation, 9-15 Markers x 1;

CBRP
62193

Coxiella burnetii (Q Fever), Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Coxiella burnetii DNA is unlikely. Submit only 1 of the following specimens: Specimen Type: Fresh tissue or biopsy Sources: Lung, bone, liver, heart valve, aorta, or endocardium Container/Tube: Sterile container Specimen Volume: Entire collection or 5 mm(3) - approximately the size of a pencil eraser Collection Instructions: 1. Collect fresh tissue specimen. 2. Submit tissue only, do not add fluid to tissue 3. Refrigerate or freeze specimen. Specimen Stability Information: Refrigerated (preferred) <7 days/ Frozen <7 days Preferred Paraffin-embedded tissue block: Specimen Type: Formalin-fixed, paraffin-embedded tissue block (FFPE) Sources: Lung, bone, liver, heart valve, aorta, or endocardium Supplies: Tissue Block Container (T553) Container/Tube: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block to be cut and returned. Specimen Stability Information: Ambient

(preferred)/Refrigerated Acceptable Paraffin-embedded tissue block: Specimen Type: Formalin-fixed, paraffin-embedded tissue block (FFPE) Sources: Lung, bone, liver, heart valve, aorta, or endocardium Container/Tube: Sterile container for each individual cut section (scroll). Collection Instructions: Perform microtomy and prepare 5 separate 10-micron sections. Each section (scroll) must be placed in a separate sterile container for submission. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: Fresh tissue or biopsy: 5 mm(3) Paraffin-embedded tissue block: two 10-micron sections

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87798

CBSRP
62194

Coxiella burnetii (Q Fever), Molecular Detection, PCR, Serum

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Coxiella burnetii DNA is unlikely. Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a sterile vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 87798

MTBT
62203

Mycobacterium tuberculosis Complex, Molecular Detection, PCR, Paraffin, Tissue

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Mycobacterium tuberculosis DNA is unlikely. Preferred: Supplies: Tissue Block Container (T553) Specimen Type: Formalin-fixed, paraffin-embedded (FFPE) tissue block Sources: Body tissue Container/Tube: Tissue block Collection Instructions: Submit a FFPE tissue block to be cut and returned. Acceptable: Specimen Type: Formalin-fixed, paraffin-embedded (FFPE) tissue sections (scrolls) Sources:

Body tissue Container/Tube: Sterile containers, one for each individual cut section (scroll). Collection Instructions: 1. Perform microtomy and prepare five separate 10-micron sections. 2. Place each section (scroll) in a separate sterile container for submission.

Specimen Minimum Volume: See Specimen Required.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue, Paraffin	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87556

CIMT 62204 Coccidioides immitis/posadasii, Molecular Detection, PCR, Paraffin, Tissue

Specimen Requirements: Preferred Paraffin-embedded tissue block: Supplies: Tissue Block Container (T553) Specimen Type: Formalin-fixed, paraffin-embedded tissue block (FFPE) Sources: Body tissue Container/Tube: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block to be cut and returned. Acceptable Paraffin-embedded tissue block: Specimen Type: Formalin-fixed, paraffin-embedded tissue block (FFPE) Sources: Body tissue Container/Tube: Sterile container for each individual cut section (scroll). Collection Instructions: Perform microtomy and prepare five separate 10-micron sections. Each section (scroll) must be placed in a separate sterile container for submission.

Specimen Minimum Volume: See Specimen Required.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue, Paraffin	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87798

LPA3P 62205 Lymphocyte Proliferation to Anti-CD3/Anti-CD28 and Anti-CD3/Interleukin-2 (IL-2), Flow Cytometry, Blood

Specimen Requirements: Supplies: Ambient Shipping Box-Critical Specimens Only (T668) Container/Tube: Green top (sodium heparin) Specimen Volume: 20 mL See table for information on recommended volume based on absolute lymphocyte count Pediatric Volume: <3 months: 1 mL 3-24 months: 3 mL 25 months-18 years: 5 mL Collection Instructions: Send whole blood specimen in original

tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimen collection be performed at the same time of day. Table. Blood Volume Recommendations Based on Absolute Lymphocyte Count (ALC) ALC Blood volume for minimum aCD28 only Blood volume for minimum of aCD3, aCD28, and IL-2 Blood volume for full assay <0.5 >15 mL >28 mL >50 mL 0.5-1.0 15 mL 28 mL 50 mL 1.1-1.5 6.5 mL 12 mL 24 mL 1.6-2.0 4.5 mL 8.5 mL 16 mL 2.1-3.0 3.5 mL 6.5 mL 12 mL 3.1-4.0 2.5 mL 4.5 mL 8 mL 4.1-5.0 1.8 mL 3.5 mL 6 mL >5.0 1.5 mL 2.5 mL 5 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
WB Sodium Heparin	Ambient	48 hours	GREEN TOP/HEP

CPT Code Information: 86353 x 2; 86353 (as appropriate); ;

ADSTM 62206 Additional Flow Stimulant (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 86353

MGSTM 62207 Additional Flow Stimulant, LPMGF (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 86353

AGSTM
62208

Additional Flow Stimulant, LPAGF (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 86353

HGEM
62230

Hydroxyglutaric Acids, Glutaric Acid, Ethylmalonic Acid, and Methylsuccinic Acid, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Card-Blood Spot Collection (Filter Paper) from heel or finger stick Acceptable: PerkinElmer (formerly Ahlstrom 226) filter paper, Munktell filter paper, Whatman Protein Saver 903 paper, available newborn screening card, blood collected in tubes containing sodium heparin or EDTA and dried on filter paper Specimen Volume: 2 Blood spots Collection Instructions: 1. Do not use device or capillary tube containing ACD to collect specimen. Sodium heparin or EDTA are acceptable but must be spotted on card the same day as collected. 2. Completely fill at least 2 circles on the filter paper card (approximately 100 microliters blood per circle). 3. Let blood dry on filter paper at room temperature in a horizontal position for a minimum of 3 hours. 4. Do not stack wet specimens. 5. Do not expose specimen to heat or direct sunlight. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions. 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800).

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	123 days	FILTER PAPER
	Frozen	123 days	FILTER PAPER
	Refrigerated	123 days	FILTER PAPER

CPT Code Information: 83918

HGEMS
62231

Hydroxyglutaric Acids, Glutaric Acid, Ethylmalonic Acid, and Methylsuccinic Acid, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.02 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	90 days
	Frozen	90 days
	Ambient	4 days

CPT Code Information: 83918

BAFS
62234

Bile Acids, Fractionated and Total, Serum

Specimen Requirements: Patient Preparation: Fasting: 12 to 14 hours, required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	90 days
	Ambient	90 days
	Frozen	90 days

CPT Code Information: 82542

PSY
62235

Psychosine, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Card-Blood Spot Collection (Filter Paper) Acceptable: PerkinElmer 226 filter paper, Munktell filter paper, Whatman protein Saver 903 paper, local newborn screening card, or blood collected in tubes containing EDTA (preferred) or heparin and dried on filter paper Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Completely fill at least 2 circles on the filter paper card (approximately 100 microliters blood per circle).

3. Let blood dry on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	96 days	FILTER PAPER
	Frozen	96 days	FILTER PAPER
	Refrigerated	96 days	FILTER PAPER

CPT Code Information: 82542

GPSY
62236

Glucopsychosine, Blood Spot

Specimen Requirements: Supplies: -Card-Blood Spot Collection Card (Filter Paper) (T493) -Card-Postmortem Screening (Filter Paper) (T525) Collection Container/Tube: Preferred: Blood Spot Collection (Filter Paper) Acceptable: Whatman Protein Saver 903 filter paper, PerkinElmer 226 filter paper, Munktell filter paper, Postmortem Screening card, or collected with sodium heparin, lithium heparin, ACD-B or EDTA containing devices Specimen Volume: 2 Blood spots Collection Instructions: 1. Let blood dry completely on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 2. At least 1 spot should be complete, (ie, unpunched) 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	10 days	FILTER PAPER
	Frozen	59 days	FILTER PAPER
	Ambient	10 days	FILTER PAPER

CPT Code Information: 82542

CBBRP
62248

Coxiella burnetii (Q Fever), Molecular Detection, PCR, Blood

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Coxiella burnetii DNA is unlikely. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Royal blue top (EDTA), pink top (EDTA), or sterile vial containing EDTA-derived aliquot Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube (preferred).

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

RMALA
62258

Id MALDI-TOF Mass Spec Anaerobe (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87076

HGEMP
62300

Hydroxyglutaric Acids, Glutaric Acid, Ethylmalonic Acid, and Methylsuccinic Acid, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA), green top (lithium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.1 mL Collection Instructions: Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: 0.02 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Refrigerated (preferred)	90 days
	Frozen	90 days
	Ambient	12 days

CPT Code Information: 83918

MPRP 62394 Mycoplasma (Mycoplasmoides) pneumoniae with Macrolide Resistance Reflex, Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Mycoplasma (Mycoplasmoides) pneumoniae DNA is unlikely. Submit only 1 of the following specimens: Specimen Type: Swab Supplies: -Culturette (BBL Culture Swab) (T092) -BD E-Swab (T853) -Culture Swab-Liquid Stuarts/Single Swab (NP Swab) (T515) -M4-RT (T605) Sources: Throat, nasal, or nasopharyngeal Container/Tube: Preferred: Culture swab transport system (Dacron or rayon swab with aluminum or plastic shaft with either Stuart or Amies liquid medium) Acceptable: Culture transport swab (Stuart's media) or place swab in M4, M4-RT, M5, M6, universal transport media, or ESwab Specimen Volume: Swab Collection Instructions: 1. Collect specimen by swabbing back and forth over mucosa surface to maximize recovery of cells. 2. Place swab back into swab cylinder. Specimen Type: Fluid Sources: Pleural, pericardial, cerebrospinal Container/Tube: Sterile container Specimen Volume: 0.5 mL Specimen Type: Respiratory Sources: Bronchial washing, bronchoalveolar lavage, tracheal secretions, sputum Container/Tube: Sterile container Specimen Volume: 1 mL

Specimen Minimum Volume: Respiratory specimen: 0.5 mL Other specimen types: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87581

P53CA 62402 Hematologic Neoplasms, TP53 Somatic Mutation, DNA Sequencing Exons 4-9, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Stability Information: Ambient

(preferred) 10 days/Refrigerated 10 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Acceptable Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA), yellow top (ACD), or green top (heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 10 days/Refrigerated 10 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Tissue Container/Tube: Plastic container Specimen Volume: 100 mg Collection Instructions: Stabilize fresh tissue in tissue culture medium or freeze immediately after collection. Specimen Stability Information: Refrigerated (preferred) 24 hours/ Frozen 10 days

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	10 days

CPT Code Information: 81352-TP53 (tumor protein 53) (eg, tumor samples), full gene sequence or targeted sequence analysis of >5 exons

HIVDI
62421

HIV-1 and HIV-2 Antibody Confirmation and Differentiation, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Centrifuge and aliquot plasma into plastic vial.

Specimen Minimum Volume: Serum: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	6 days

CPT Code Information: 86701; 86702; 87535 (if appropriate); 87538 (if appropriate);

GATOL
62440

Galactitol, Quantitative, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 2 mL Collection Instructions: 1. Collect a random urine specimen. 2. No

preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 82542

MITOP
62510

Mitochondrial Full Genome Analysis, Next-Generation Sequencing (NGS), Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen

Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a tissue biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur Specimen Type: Snap frozen nerve tissue biopsy Collection Instructions: Prepare snap frozen tissue biopsy per surgical procedure Specimen Volume: 0.25 to 0.5 cm Specimen Stability Information: Frozen Specimen Type: Muscle tissue biopsy Supplies: Muscle Biopsy Kit (T541) Specimen Volume: 20 to 80 mg Collection Instructions: Prepare and transport specimen per instructions in Muscle Biopsy Specimen Preparation Instructions. Specimen Stability Information: Frozen (preferred) <24 hours/Ambient <24 hours/Refrigerated <24 hours Additional Information: Specimens are preferred to be received within 24 hours of collection. Extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture

charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81460-Whole Mitochondrial Genome; 81465-Whole Mitochondrial Genome Large Deletion Analysis; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

MANN
62511

Alpha-Mannosidase, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) Specimen Volume: 6 mL Collection Instructions: Send specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood ACD	Refrigerated (preferred)	6 days	YELLOW TOP/ACD
	Ambient	6 days	YELLOW TOP/ACD

CPT Code Information: 82657

BAPS
62538

Bile Acid Profile, Serum

Specimen Requirements: Patient Preparation: Fasting: 12 to 14 hours, required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	90 days
	Ambient	90 days
	Frozen	90 days

CPT Code Information: 82542

PSPTG
62578

Phosphatidylserine/Prothrombin Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86148

MTXSG
62580

Methotrexate Post Glucarpidase, Serum

Specimen Requirements: Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Amber vial Specimen Volume: 1 mL serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into an amber vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	7 days	LIGHT PROTECTED
	Frozen	14 days	LIGHT PROTECTED
	Ambient	7 days	LIGHT PROTECTED

CPT Code Information: 80204

FRTUP
62583

Free Thyroxine Index (FTI), Serum

Specimen Requirements: Patient Preparation: 1. For 12 hours before specimen collection do not take multivitamins or dietary supplements containing biotin (vitamin B7), which is commonly found in hair, skin, and nail supplements and multivitamins. 2. If patient is receiving treatment with lipid-lowering agents containing dextrothyroxine (D-T4), discontinue for 4 to 6 weeks prior to specimen collection. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 84479-Thyroxine binding capacity; 84436-Thyroxine total;

TAPEN
62594

Tapentadol and Metabolite, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test. 3. Submitting less than 1 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: G0480; 80372 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

TRAM
62595

Tramadol and Metabolite, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test. 3. Submitting less than 1 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: G0480; 80373 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

HPV
62598

Human Papillomavirus (HPV) DNA Detection with Genotyping, High-Risk Types by PCR, ThinPrep, Varies

Specimen Requirements: Specimen Type: Cervical (endocervical or ectocervical) Container/Tube: ThinPrep/PreservCyt solution vial Specimen Volume: 3 mL of solution in ThinPrep/PreservCyt vial Collection Instructions: 1. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 2. Place labels on the vial and on the bag.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	42 days	
	Refrigerated	42 days	

CPT Code Information: 87626; G0476 (if appropriate);

SHPV
62599

Human Papillomavirus (HPV) DNA Detection with Genotyping, High-Risk Types by PCR, SurePath, Varies

Specimen Requirements: Supplies: Cobas PCR Media Tube w/Cap (T945) Specimen Type: Cervical (endocervical or ectocervical) or vaginal Specimen Volume: 3.0 mL Collection Instructions: 1. Aliquot 3 mL SurePath specimen into Cobas PCR Media Tube w/Cap tube. 2. Bag specimens individually as they have a tendency to leak during transport. 3. Place labels on the vial and on the bag.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	42 days	
	Refrigerated	42 days	

CPT Code Information: 87626; G0476 (if appropriate);

PCANH
62600

Pecan Hickory, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CARNP
62606

Carbapenemase Detection-Carba NP Test, Varies

Specimen Requirements: Preferred: Specimen Type: Pure culture of Enterobacterales or Pseudomonas aeruginosa from source cultured Supplies: Infectious Container, Large (T146) Container/Tube: Agar slant or other appropriate media Collection Instructions: 1. Perform isolation of bacterial isolate. 2. Submit Enterobacterales or Pseudomonas aeruginosa isolate in pure culture actively growing. Do not submit mixed cultures. 3. Place the slant into the secondary infectious container for shipment. 4. Each isolate must be submitted under a separate order. Acceptable: Specimen Type: Enterobacterales or Pseudomonas aeruginosa isolate swab Supplies: -E-Swab (T853) -Infectious Container, Large (T146) Container/Tube: E-Swab collection and transport system Collection Instructions: 1. Perform isolation of bacterial isolate. 2. Utilize the E-swab to obtain an adequate sample of Enterobacterales or Pseudomonas aeruginosa isolate in pure culture. Do not submit mixed cultures. 3. Place swab into the transport system containing 1-mL liquid Amies transport medium. 4. If needed, break off end of swab and close the transport tube. 5. Place the transport system into the secondary infectious container for shipment. 6. Each isolate must be submitted under a separate order.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87185

HYDCU
62614

Hydrocodone with Metabolite Confirmation, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STATS are not accepted for this test. 3. Submitting less than 1 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: G0480; 80361 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance; ; ; ;

HYDMU
62615

Hydromorphone Confirmation, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test. 3. Submitting less than 1 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: G0480; 80361 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance; ; ;

OXYCU
62616

Oxycodone with Metabolite Confirmation, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test. 3. Submitting less than 1 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: G0480; 80365 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

OXYMU
62622

Oxymorphone Confirmation, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test. 3. Submitting less than 1 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: G0480; 80365 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

OXYSU
62623

Oxycodone Screen, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5 mL tube Specimen Volume: 2 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 80307

ROMA
62661

ROMA Score (Ovarian Malignancy Risk Algorithm), Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	84 days
	Refrigerated	48 hours

CPT Code Information: 86305-HE4, S; 86304-Cancer Ag 125 (CA 125), S;

CMAMT
62667

Chromosomal Microarray, Autopsy/Products of Conception/Stillbirth, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Tissue Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block containing fetal or placental (including chorionic villi) tissue. Specimen Type: Slides Specimen Volume: 6 Consecutive, unstained, 5-micron-thick sections placed on positively charged slides and 1 hematoxylin and eosin-stained slide. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Formalin-fixed, paraffin-embedded tissue block; 5 Consecutive, unstained slides and 1 hematoxylin and eosin-stained slide

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81229

6MAMX
62708

6-Monoacetylmorphine, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain-of-Custody Kit containing specimen containers, seals, and documentation is required. Specimen Volume: 10 mL Collection Instructions: Collect a random specimen without preservative in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing.

Specimen Minimum Volume: 2.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: G0480; 80356 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

ADLTX
62710

Adulterants Survey, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain-of-custody kit containing the specimen containers, seals, and documentation required. Specimen Volume: 1.5 mL Collection Instructions: Collect a random specimen without preservative in the provided container, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Submitting less than 1.5 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information:

AMPHX
62711

Amphetamines Confirmation, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain of custody kit containing the specimen containers, seals, and documentation required Specimen Volume: 5 mL Collection Instructions: Collect specimen in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Submitting less than 5 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: G0480; 80325 (if appropriate for select payers); 80359 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

AMPMX 62712 Amphetamine-Type Stimulants Confirmation, Chain of Custody, Meconium

Specimen Requirements: Supplies: Chain of Custody Meconium Kit (T653) includes the specimen containers, seals, and documentation required. Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: Collect entire random meconium specimen. Additional Information: 1. Specimen that arrives with a broken seal does not meet the chain of custody requirements. 2. The laboratory recommends sending chain-of-custody specimens by overnight shipment.

Specimen Minimum Volume: 0.3 g (approximately 1/4 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen (preferred)	28 days
	Ambient	28 days
	Refrigerated	28 days

CPT Code Information: G0480; 80324 (if appropriate for select payers); 80359 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

BARBX 62713 Barbiturates Confirmation, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain of custody kit (T282) containing the specimen containers, seals, and documentation required Specimen Volume: 10 mL Collection Instructions: Collect specimen in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Submitting less than 10 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: G0480; 80345 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

CDA7X
62716

Drug Abuse Survey with Confirmation, Panel 9, Chain of Custody, Random, Urine

Specimen Requirements: Container/Tube: Chain-of-Custody Kit (T282) containing specimen containers, seals, and documentation required Specimen Volume: 30 mL Collection Instructions: Collect specimen in the provided container, seal, and submit it with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Submitting less than 30 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	14 days

CPT Code Information: 80307

COKEX
62719

Cocaine and Metabolite Confirmation, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain of custody kit containing the specimen containers, seals, and documentation required. Specimen Volume: 10 mL Collection Instructions: Collect specimen in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Submitting less than 10 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: G0480; 80353 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

COKMX 62720 Cocaine and Metabolite Confirmation, Chain of Custody, Meconium

Specimen Requirements: Supplies: Chain of Custody Meconium Kit (T653) includes the specimen containers, seals, and documentation required. Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: Collect entire random meconium specimen. Additional Information: 1. Specimen that arrives with a broken seal does not meet the chain of custody requirements. 2. The laboratory recommends sending chain-of-custody specimens by overnight shipment.

Specimen Minimum Volume: 0.3 g (approximately 1/4 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen (preferred)	21 days
	Refrigerated	21 days
	Ambient	72 hours

CPT Code Information: G0480; 80353 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance; ;

DSM4X 62721 Drugs of Abuse Screen 4, Chain of Custody, Meconium

Specimen Requirements: Container/Tube: Chain of Custody Meconium Kit (T653) includes the specimen containers, seals, and documentation required. Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: Collect entire random meconium specimen. Additional Information: 1. Specimen that arrives with a broken seal does not meet the chain-of-custody requirements. 2. The laboratory recommends sending chain-of-custody specimens by overnight shipment.

Specimen Minimum Volume: 0.45 g (approximately 0.5 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen (preferred)	21 days
	Refrigerated	21 days
	Ambient	72 hours

CPT Code Information: 80307; 80324 (if appropriate); 80359 (if appropriate); 80353 (if appropriate); 80361 (if appropriate); 80365 (if appropriate); 80349 (if appropriate);

DSM5X
62722

Drugs of Abuse Screen 5, Chain of Custody, Meconium

Specimen Requirements: Container/Tube: Chain of Custody Meconium Kit (T653) includes the specimen containers, seals, and documentation required Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: Collect entire random meconium specimen Additional Information: 1. Specimen that arrives with a broken seal does not meet the chain-of-custody requirements. 2. The laboratory recommends sending chain-of-custody specimens by overnight shipment.

Specimen Minimum Volume: 0.45 g (approximately 0.5 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen (preferred)	21 days
	Refrigerated	21 days
	Ambient	72 hours

CPT Code Information: 80307; 80324 (if appropriate); 80359 (if appropriate); 80353 (if appropriate); 80361 (if appropriate); 80365 (if appropriate); 80349 (if appropriate); 83992 (if appropriate);

FENTX
62726

Fentanyl with Metabolite Confirmation, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain of Custody Kit (T282) containing the specimen containers, seals, and documentation required Specimen Volume: 5 mL Collection Instructions: Collect urine specimen in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Submitting less than 5 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 2.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	21 days

CPT Code Information: G0480; 80354 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

MAMMX 62732 6-Monoacetylmorphine (6-MAM) Confirmation, Chain of Custody, Meconium

Specimen Requirements: Supplies: Chain of Custody Meconium Kit (T653) Container/Tube: Chain of custody kit containing the specimen containers, seals, and documentation required Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: 1. Collect entire random meconium specimen in the container provided. Seal and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. 2. Send specimen frozen. When refrigerated, a significant percentage of 6-monoacetylmorphine will convert to morphine in less than 24 hours. Additional Information: Specimen that arrives with a broken seal does not meet the chain-of-custody requirements.

Specimen Minimum Volume: 0.3 g (approximately 1/4 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen	14 days

CPT Code Information: G0480; 80356 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

MTDNX 62734 Methadone Confirmation, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain-of-custody kit containing the specimen containers, seals, and documentation required. Specimen Volume: 10 mL Collection Instructions: Collect urine specimen in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Submitting less than 10 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: G0480; 80358 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

OPATX
62735

Opiates Confirmation, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain of custody kit containing the specimen containers, seals, and documentation is required. Specimen Volume: 5 mL Collection Instructions: Collect urine specimen in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Submitting less than 5 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: G0480; 80361 (if appropriate for select payers); 80365 (if appropriate for select payers); 80362 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance; ;

OPTMX
62736

Opiate Confirmation, Chain of Custody, Meconium

Specimen Requirements: Supplies: Chain of Custody Meconium Kit (T653) includes the specimen containers, seals, and documentation required. Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: Collect entire random meconium specimen. Additional Information: 1. Specimen that arrives with a broken seal does not meet the chain of custody requirements. 2. The laboratory recommends sending chain-of-custody specimens by overnight shipment.

Specimen Minimum Volume: 0.3 g (approximately 1/4 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen (preferred)	28 days
	Refrigerated	28 days
	Ambient	14 days

CPT Code Information: G0480; 80361 (if appropriate for select payers); 80365 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance; ;

PANOX
62737

Pain Clinic Survey 10, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain-of-Custody Kit containing the specimen containers, seals, and documentation is required. Specimen Volume: 30 mL Collection Instructions: Collect a random specimen without preservative in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Submitting less than 30 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 20 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	14 days

CPT Code Information: 80307

PCPX
62739

Phencyclidine Confirmation, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain-of-Custody Kit containing the specimen containers, seals, and required documentation Specimen Volume: 10 mL Collection Instructions: Collect specimen in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information:

PCPMX 62740 Phencyclidine (PCP) Confirmation, Chain of Custody, Meconium

Specimen Requirements: Supplies: Chain of Custody Meconium Kit (T653) Container/Tube: Chain of custody kit containing the specimen containers, seals, and documentation required Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: Collect entire random meconium specimen in the container provided. Seal and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Specimen that arrives with a broken seal does not meet the chain-of-custody requirements.

Specimen Minimum Volume: 0.3 g (approximately 1/4 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen (preferred)	28 days
	Ambient	28 days
	Refrigerated	28 days

CPT Code Information: G0480; 83992 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

PDSUX 62741 Drug Screen, Prescription/Over the Counter, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain-of-Custody Kit (T282) Container/Tube: Chain-of-Custody Kit containing the specimen containers, seals, and documentation required. Specimen Volume: 30 mL Collection Instructions: Collect a random urine specimen without preservative in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Submitting less than 30 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 1.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	3 hours

CPT Code Information: 80307

THCX 62743 Delta-8 and Delta-9-Carboxy-Tetrahydrocannabinol (THC) Confirmation, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain-of-Custody Kit containing the specimen containers, seals, and required documentation. Specimen Volume: 5 mL Collection Instructions: Collect specimen in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: G0480; 80349 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

THCMX 62744 11-nor-Delta-9-Tetrahydrocannabinol-9-Carboxylic Acid (Carboxy-THC) Confirmation, Chain of Custody, Meconium

Specimen Requirements: Supplies: Chain-of-Custody Meconium Kit (T653) includes the specimen containers, seals, and documentation required. Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: Collect entire random meconium specimen. Additional Information: Specimens that arrive with a broken seal do not meet the chain of custody requirements.

Specimen Minimum Volume: 0.3 g (approximately 1/4 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen (preferred)	28 days
	Refrigerated	21 days
	Ambient	14 days

CPT Code Information: G0480; 80349 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance; ;

VLTBX
62745

Volatile Screen, Chain of Custody, Blood

Specimen Requirements: Supplies: Chain-of-Custody Kit (T282) Container/Tube: Chain-of-Custody Kit containing the specimen container seals and documentation required. Preferred: Gray top (potassium oxalate/sodium fluoride) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 2 mL Collection Instructions: 1. Do not use alcohol to clean arm. Use alternative such as Betadine to cleanse arm before collecting any specimen for volatile testing. 2. Specimen must be sent in original tube. Collect specimen, seal, and submit with the associated documentation to satisfy the legal requirements for chain of custody testing.

Specimen Minimum Volume: 0.5 mL or amount to fill 1 tube

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	24 hours

CPT Code Information: G0480; 80320 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

VLTUX
62746

Volatile Screen, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain-of-Custody Kit (T282) Container/Tube: Chain-of-Custody Kit containing the specimen containers, seals, and documentation required. Specimen Volume: 10 mL Collection Instructions: Collect a random urine specimen using the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain of custody testing.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	24 hours

CPT Code Information: G0480; 80320 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance; ;

TGMS
62749

Thyroglobulin Mass Spectrometry, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.25 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	416 days
	Ambient	72 hours

CPT Code Information: 84432

DHR
62764

Dihydrorhodamine Flow Cytometric Test, Blood

Specimen Requirements: Two whole-blood sodium heparin specimens are required, one from the testing patient and the other from an unrelated healthy donor as a control. Supplies: Ambient Shipping Box-Critical Specimens Only (T668) Patient: Container/Tube: Green top (sodium heparin) Specimen Volume: 5 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Normal Control: Container/Tube: Green top (sodium heparin) Specimen Volume: 5 mL Collection Instructions: 1. Collect a control specimen from the unrelated healthy donor within an hour of the patient's specimen collection time. 2. Clearly label as Normal Control on the outermost label. 3. Send the whole blood specimen in the original tube. Do not aliquot. 4. Rubber band patient specimen and control vial together.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
WB Sodium Heparin	Ambient	48 hours	GREEN TOP/HEP

CPT Code Information: 86352 x2

DHRP
62765

Dihydrorhodamine Flow Cytometric Phorbol Myristate Acetate Test, Blood

Specimen Requirements: Two whole-blood sodium heparin specimens are required, one from the testing patient and the other from an unrelated healthy donor as a control. Supplies: Ambient Shipping Box-Critical Specimens Only (T668) Patient: Container/Tube: Green top (sodium heparin) Specimen Volume: 5 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Normal Control: Container/Tube: Green top (sodium heparin) Specimen Volume: 5 mL Collection Instructions: 1. Collect a control specimen from the unrelated healthy donor within an hour of the patient's specimen collection time. 2. Label clearly as Normal Control and the corresponding patient information. 3. Send the whole blood specimen in the original tube. Do not aliquot. 4. Rubber band patient specimen and normal control vials together.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
WB Sodium Heparin	Ambient	48 hours	GREEN TOP/HEP

CPT Code Information: 86352

HELIS
62769

Helicobacter pylori Culture with Antimicrobial Susceptibilities, Varies

Specimen Requirements: Preferred: Specimen Type: Fresh tissue or biopsy Sources: Gastric or duodenum Container/Tube: Sterile container Specimen Volume: 0.5 x 0.2 x 0.2-cm sized piece of tissue Collection Instructions: Acquire biopsied tissue; moisten with sterile saline Acceptable: Specimen Type: Fluid Sources: Gastric brushings, gastric aspirate Container/Tube: Sterile container Specimen Volume: Entire collection or 0.5 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated	48 hours

CPT Code Information: 87081-Helicobacter pylori culture; 87077-Bacteria identification (if appropriate); 87153-Aerobe Ident by Sequencing (if appropriate); 87176-Tissue processing (if appropriate); 87181-Susceptibility per drug and per organism for drugs not in routine battery (if appropriate); 87186-Antimicrobial Susceptibility, Aerobic Bacteria, MIC-per organism for routine battery (if appropriate); 87150-H pylori + Clarithro Resistance PCR (if appropriate);

HTG2
62800

Thyroglobulin, Tumor Marker, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84432; 86800;

DENVP
62869

Dengue Virus Antibody/Antigen Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86790 x 3

LACO
62905

Lacosamide, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Collect specimen immediately before next scheduled dose. 2. For sustained-release formulations ONLY, collect specimen a minimum of 12 hours after last dose. 3. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80235

PN10X
62911

Pain Clinic Survey 10, Chain of Custody, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see PANOX / Pain Clinic Survey 10, Chain of Custody, Random Urine. Supplies: Chain of Custody Kit (T282) Container/Tube: Chain-of-Custody Kit containing the specimen containers, seals, and documentation is required. Specimen Volume: 30 mL Collection Instructions: Collect a random specimen without preservative in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Submitting less than 30 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 20 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	14 days

CPT Code Information: 80307

CALR
62912

CALR Mutation Analysis, Myeloproliferative Neoplasm (MPN), Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Stability Information: Ambient (preferred)/Refrigerate Additional Information: To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) or yellow top (ACD Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred)/Refrigerate Specimen Type: Extracted DNA from blood or bone marrow Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted from blood or bone marrow within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of the DNA. Specimen Stability Information: Frozen (preferred) 1 year/Refrigerate/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood/bone marrow: 1 mL; Extracted DNA: 50 mcl at 20 ng/mcL concentration

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	7 days

CPT Code Information: 81219-CALR (calreticulin) (eg, myeloproliferative disorders), gene analysis, common variants in exon 9

B2GMG
62926

Beta-2 Glycoprotein 1 Antibodies, IgG and IgM, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge

and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86146 x 2

MYD88
62927

MYD88, L265P, Somatic Gene Mutation, DNA Allele-Specific PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD), green top (sodium heparin) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 10 days/Refrigerated 10 days Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD), green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Stability Information: Ambient (preferred) 10 days/Refrigerated 10 days Specimen Type: Paraffin-embedded tissue Container/ Tube: Paraffin block Collection Instructions: 1. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. 2. Indicate specimen source. Specimen Stability Information: Ambient Additional Information: If the quality of the biopsy specimen is poor, testing should not be ordered. Testing may be canceled if DNA requirements are inadequate. Acceptable: Specimen Type: Tissue slide Slides: 20 unstained slides Container/ Tube: Transport in plastic slide holders. Collection Instructions: 1. Send 20 unstained, nonbaked slides with 5-micron thick sections of tissue. 2. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. 3. Indicate specimen source. Specimen Stability Information: Ambient Additional Information: Testing may be canceled if resultant extracted DNA does not meet concentration requirements. Specimen Type: Frozen tissue Container/Tube: Plastic container Specimen Volume: 100 mg Collection Instructions: 1. Freeze tissue within 1 hour of collection 2. Indicate specimen source. Specimen Stability Information: Frozen Specimen Type: Extracted DNA Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of DNA on label. Specimen Stability Information: Frozen (preferred)/Refrigerated/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood, bone marrow aspirate, body fluid: 0.5 mL; Frozen tissue: 50 mg; Extracted DNA: 50 microliters (mcL) at 20 ng/mcL; Tissue slides: 10 unstained slides

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	10 days

CPT Code Information: 81305

HEVQU
62929

Hepatitis E Virus RNA Detection and Quantification, Real-Time RT-PCR, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.8 mL Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum SST	Frozen (preferred)	35 days	ALIQUOT TUBE
	Refrigerated	5 days	ALIQUOT TUBE

CPT Code Information: 87799

HTGR
62936

Thyroglobulin, Tumor Marker Reflex, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: None (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 86800; 84432 (if appropriate);

LALB
62954

Lysosomal Acid Lipase, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) or green top (sodium heparin) Specimen Volume: 2 mL Collection Instructions: Send whole blood in original tube. Do not aliquot

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	7 days
	Ambient	7 days

CPT Code Information: 82657

LALBS
62955

Lysosomal Acid Lipase, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Collection Container/Tube: Preferred: Blood spot collection card Acceptable: PerkinElmer 226 filter paper, Munktell TFN, or Whatman Protein Saver 903 Paper Specimen Volume: 2 Blood spots Collection Instructions: 1. Completely fill at least 2 circles on the filter paper card (approximately 100 microliters blood per circle). 2. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 3. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions. 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800).

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	28 days	FILTER PAPER
	Frozen	90 days	FILTER PAPER
	Ambient	7 days	FILTER PAPER

CPT Code Information: 82657

TOXB
62977

Toxoplasma gondii, Molecular Detection, PCR, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

WGSEQ
62982

Gamma-Globin Full Gene Sequencing, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix whole blood. 2. Send whole blood specimen in the original tube. Do not aliquot. Specimen Stability Information: Refrigerate 30 days(preferred)/Ambient 14 days Specimen Type: Extracted DNA from whole blood Container/Tube: 1.5 to 2 mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted from whole blood within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of the DNA. Specimen Stability Information: Frozen (preferred) 1 year/Refrigerate/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood: 1 mL; Extracted DNA: 50 mcL at 50 ng/mcL concentration

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479-Unlisted molecular

CHIMU
62983

Chimerism Transplant No Cell Sort, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Only 1 tube is required. 2. Invert several times to mix blood. 3. Label specimen as blood. 4. Send whole blood specimen in original tube. Do not aliquot. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Whole Blood: 3 mL Bone marrow: 1 mL Lesser volumes may be acceptable, depending on white cell count. Call 800-533-1710 or 507-266-5700 with questions.

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	7 days	PURPLE OR PINK TOP/EDTA
	Refrigerated	7 days	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81267-Chimerism (engraftment) analysis, post hematopoietic stem cell transplantation specimen, includes comparison to previously performed baseline analyses, without cell selection

CHIMS
62984

Chimerism Transplant Sorted Cells, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Only 1 tube is required. 2. Invert several times to mix blood. 3. Label specimen as blood. 4. Send whole blood specimen in original tube. Do not aliquot. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Whole blood: 3 mL Bone marrow: See Specimen Required Lesser volumes may be acceptable, depending on white cell count. Call 800-533-1710 or 507-266-5700 with questions.

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	4 days	PURPLE OR PINK TOP/EDTA
	Refrigerated	4 days	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81268-Chimerism (engraftment) analysis, post hematopoietic stem cell transplantation specimen, includes comparison to previously performed baseline analyses; with cell selection (eg, CD3, CD33), each cell type (if appropriate)

OXNP
62988

Oxysterols, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	65 days

CPT Code Information: 82542

INSFT
62990

Insulin, Free and Total, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 8 hours, required 2. For 12 hours before specimen collection, do not take multivitamins or dietary supplements containing biotin (vitamin B7), which is commonly found in hair, skin, and nail supplements and multivitamins. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2.45 mL Collection Instructions: 1. Avoid hemolysis 2. Label specimens with corresponding collection times. 3. Serum-gel tubes should be centrifuged within 2 hours of collection. 4. Red-top tubes should be centrifuged and aliquoted within 2 hours of collection. 5. Send specimen refrigerated Additional Information: If multiple specimens are collected, send separate order for each specimen.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	24 hours

CPT Code Information: 83527-Free Insulin; 83525-Total Insulin;

HPVP
62995

Human Papillomavirus (HPV) DNA Detection with Genotyping,

High Risk Types by PCR with Papanicolaou Smear Reflex, ThinPrep, Varies

Specimen Requirements: Original ThinPrep/PreservCyt collection vial is required for testing. Only 1 aliquot may be removed from PreservCyt sample vial prior to performing the ThinPrep Pap Test, regardless of the volume of the aliquot (maximum aliquot volume=3 mL). For optimal interpretation, Pap smears should be collected near the middle of the menstrual cycle. Avoid douching, lubricant use, and sexual intercourse for 24 hours prior to specimen collection. Specimen source is required. Submit only 1 of the following specimens: Broom Collection Device: Specimen Type: Cervical (endocervical or ectocervical) Supplies: Thin Prep Media with Broom Kit (T056) Container/Tube: ThinPrep/PreservCyt vial Specimen Volume: 20 mL of solution in ThinPrep/PreservCyt vial Collection Instructions: 1. Obtain adequate sampling from cervix using a broom-like collection device. If desired, use lukewarm water to warm and lubricate the speculum. Insert the central bristles of the broom into the endocervical canal deep enough to allow the shorter bristles to fully contact the ectocervix. Push gently and rotate the broom in a clockwise direction 5 times. 2. Rinse the broom as quickly as possible into the PreservCyt solution vial by pushing broom into bottom of vial 10 times, forcing the bristles apart. 3. As a final step, swirl broom vigorously to further release material. Discard the broom collection device. 4. Tighten cap on vial so that the torque line on the cap passes the torque line on the vial. 5. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 6. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 7. Place labels on the vial and on the bag. Endocervical Brush/Spatula Collection Device: Specimen Type: Ectocervix and endocervix Supplies: Thin Prep Media with Spatula and Brush Kit (T434) Container/Tube: ThinPrep/PreservCyt vial Specimen Volume: 20 mL of solution in ThinPrep/PreservCyt vial Collection Instructions: 1. Obtain an adequate sampling from the ectocervix using a plastic spatula. If desired, use lukewarm water to warm and lubricate the speculum. Select contoured end of plastic spatula and rotate it 360 degrees around the entire exocervix while maintaining tight contact with exocervical surface. 2. Rinse spatula as quickly as possible into the PreservCyt solution vial by swirling spatula vigorously in vial 10 times. Discard the spatula. 3. Next, obtain an adequate specimen from endocervix using an endocervical brush device. Insert the brush into the cervix until only the bottommost fibers are exposed. Slowly rotate 1/4 or 1/2 turn in one direction. Do not over-rotate. 4. Rinse the brush as quickly as possible in the PreservCyt solution by rotating the device in the solution 10 times while pushing against the PreservCyt vial wall. 5. Swirl brush vigorously as final step to further release material. Discard the brush. 6. Tighten the cap so that the torque line on the cap passes the torque line on the vial. 7. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 8. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 9. Place labels on the vial.

Specimen Minimum Volume: 17 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	42 days	
	Refrigerated	42 days	

CPT Code Information: 87626; G0476 (if appropriate); 88142 (if appropriate);

LHPED
62999

Luteinizing Hormone (LH), Pediatrics, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube. 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.25 mL Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For red top tubes, aliquot serum into a plastic vial immediately. 3. For serum gel tubes, serum may sit on gel refrigerated but must be aliquoted into a plastic vial within 4 hours.

Specimen Minimum Volume: 0.13 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 83002

CALPR
63016

Calprotectin, Feces

Specimen Requirements: Supplies: Stool container, Small (Random), 4 oz Random (T288) Submission Container/Tube: Stool container Specimen Volume: 5 g Collection Instructions: 1. Collect a fresh random fecal specimen, no preservatives. 2. If specimen is sent refrigerate, send immediately after collection. 3. If specimen cannot be sent immediately, freeze specimen, and send frozen. Additional Information: 1. Separate specimens must be submitted when multiple tests are ordered, with the exception of ELASF / Pancreatic Elastase, Feces. If only a single specimen is collected, it must be split prior to transport. 2. Testing cannot be added on to a previously collected specimen.

Specimen Minimum Volume: 1 g

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen (preferred)	7 days
	Refrigerated	72 hours

CPT Code Information: 83993

VEGF
63019

Vascular Endothelial Growth Factor, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	21 days
	Refrigerated	24 hours

CPT Code Information: 83520

RUFI
63030

Rufinamide, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Collect blood immediately before next scheduled dose. 2. For sustained-release formulations ONLY, collect blood a minimum of 12 hours after last dose. 3. Within 2 hours of collection, centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80210

MPNR
63031

Myeloproliferative Neoplasm, JAK2 V617F with Reflex to CALR and MPL, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole Blood Container/Tube: Lavender top (EDTA) or yellow top (ACD solution B) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Stability Information: Ambient (preferred)/Refrigerate Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) or yellow top (ACD solution B) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred)/Refrigerate Specimen Type: Extracted DNA from whole blood or bone marrow Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted from blood or bone marrow within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen 3. Provide volume and concentration of the DNA. Specimen Stability Information: Frozen (preferred) 1

year/Refrigerate/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Blood, bone marrow: 0.5 mL; Extracted DNA: 50 mcL at 20 ng/mcL concentration

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	7 days

CPT Code Information: 81270-JAK2 (Janus kinase 2) (eg, myeloproliferative disorder) gene analysis, p.Val617Phe (V617F) variant 81219-CALR (calreticulin) (eg, myeloproliferative disorders), gene analysis, common variants in exon 9 (if appropriate) 81339-MPL (MPL proto-oncogene, thrombopoietin receptor) (eg, myeloproliferative disorder) gene analysis; sequence analysis, exon 10 (if appropriate)

FMTT
63032

Familial Variant, Targeted Testing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimen types: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: Whatman FTA Classic paper, PerkinElmer 226 filter paper, or Blood Spot Collection Card Specimen Volume: 2 to 5 Blood spots on collection card Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect Dried Blood Spot Samples. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 2. For collection instructions, see Blood Spot Collection Instructions 3. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 4. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions

(T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical and Molecular Testing, Tissue. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory, or equivalent, and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL Tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection

Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: The applicable CPT code will be applied on a case-by-case basis.; ; Gene; CPT Code (as appropriate); Any gene not listed below; 81403; APC ; 81202; AR; 81174; BRCA1; 81215; BRCA2; 81217; CACNA1A; 81186; CFTR; 81221; CSTB; 81190; FXN; 81289; G6PD; 81248; GJB2; 81253; HBA1; 81258; HBA2; 81258; HBB; 81362; MECP2; 81303; MLH1; 81293; MSH2; 81296; MSH6; 81299; PALB2; 81308; PMP22; 81326; PMS2; 81318; PTEN; 81322; SMN1; 81337; TP53; 81353; ; 81265-Maternal cell contamination (if appropriate); 88233-Tissue culture, skin or solid tissue biopsy (if appropriate) ; 88235-Tissue culture for amniotic fluid (if appropriate) ; 88240-Cryopreservation (if appropriate);

CMAPC
63042

Chromosomal Microarray, Autopsy, Products of Conception, or Stillbirth

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Products of conception or stillbirth Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's solution, Ringer's solution, or normal saline Specimen Volume: 1 cm(3) of placenta (including 50-mg chorionic villi) and 1 cm(3) biopsy specimen of muscle/fascia from the thigh Collection Instructions: 1. Attempt to identify and send only fetal tissue for analysis. 2. If a fetus cannot be specifically identified, collect 50-mg villus material or tissue that appears to be of fetal origin. 3. If multiple specimen types are sent, send each specimen in a separate container. Multiple specimens received (eg, placenta and fetal thigh) will be ordered under 1 test. All specimens will be processed separately. Additional Information: 1. Do not send entire fetus. 2. Do not send the container from a dilation and curettage (D and C) procedure. 3. Do not send other containers with large volumes of tissue. 4. While fresher specimens prepared as described above are preferred, we can attempt analysis on specimens that have been in less-than-ideal conditions. Specimen Type: Autopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's solution, Ringer's solution, or normal saline Specimen Volume: 1 cm(3) biopsy specimen of muscle/fascia from the thigh Collection Instructions: 1. Wash biopsy site with an antiseptic soap. 2. Thoroughly rinse area with sterile water. 3. Do not use alcohol or iodine preparations. 4. Biopsy specimens are best taken by punch biopsy to include full thickness of dermis. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 to 30 mL Collection Instructions: 1. Optimal timing for specimen collection is during 14 to 18 weeks of gestation, but specimens collected at other weeks of gestation are also accepted. Provide gestational age at the time of amniocentesis. 2. Discard the first 2 mL of amniotic fluid. Additional Information: 1. Unavoidably, about 1% to 2% of mailed-in specimens are not viable. 2. Bloody specimens are undesirable. 3. Results will be reported and telephoned or faxed if requested.

Specimen Type: Chorionic villus Supplies: CVS Media (RPMI) and Small Dish (T095) Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 50 mg Collection Instructions: 1. Collect chorionic villus specimen (CVS) by transabdominal or transcervical method. 2. Transfer CVS to a Petri dish containing transport medium (such as CVS Media [RPMI] and Small Dish). 3. Using a stereomicroscope and sterile forceps, assess the quality and quantity of villi and remove any blood clots and maternal decidua. Acceptable Specimen Type: Cultured cells Container/Tube: T25 flasks with culture media Specimen Volume: 2 T25 flasks Specimen Type: Tissue Supplies: Hank's Solution (T132) Container/Tube: In sterile Hank's solution

Specimen Minimum Volume: Chorionic villus: 10 mg; Muscle-fascia: 1 cm(3); Other specimen types: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)		
	Refrigerated		

CPT Code Information: 81229

MDM2F
63049

MDM2 (12q15) Amplification, Well-Differentiated Liposarcoma/Atypical Lipomatous Tumor, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 4 unstained Collection Instructions: Submit 1 slide stained with hematoxylin and eosin and 4 consecutive unstained, positively charged, unbaked slides with 5-micron-thick sections of the tumor tissue. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271x2-DNA probe, each; each additional probe set (if appropriate); 88271-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

FENS
63060

Fentanyl Screen, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 2 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 80307

FENR
63061

Fentanyl Screen with Reflex, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 80307

HCVL
63063

Hepatitis C Virus Antibody Confirmation, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.4 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	7 days

CPT Code Information: 86804

LCMSP
63097

Microsporidia species, Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Unpreserved feces Supplies: -Stool container, Small (Random), 4 oz (T288) -Stool Collection Kit, Random (T635) Container/Tube: Fecal container Specimen Volume: 5 g Specimen Type: Preserved feces Supplies: -ECOFIX Stool Transport Vial (Kit) (T219) -Stool Collection Kit, Random (T635) Container/Tube: ECOFIX preservative Specimen Volume: 5 g Specimen Type: Urine Container/Tube: Sterile container Specimen Volume: 5 mL Collection Instructions: Mid-stream, clean-catch, suprapubic aspirates and catheterization collections are acceptable. Submit in a clean, sterile container free from preservatives. The first portion of the voided urine (first void) is also acceptable.

Specimen Minimum Volume: Feces: 1 g Urine: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	7 days

CPT Code Information: 87798

BUPS
63119

Buprenorphine Screen, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. Submit 5 mL in 1 plastic vial. 3. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test. 3. Submitting less than 5 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 80307

SERPZ
63128

SERPINA1 Gene, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days /Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

HBABY
63137

Hepatitis B Virus Perinatal Exposure Follow-up Panel, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements containing biotin (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.2 mL Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86706; 86704; 87340; 87341 (if appropriate);

OXYBS
63147

Oxysterols, Blood Spot

Specimen Requirements: Supplies: -Card-Blood Spot Collection (Filter Paper) (T493) -Card-Postmortem Screening (Filter Paper) (T525) Container/Tube: Preferred: Blood Spot Collection Card (Filter Paper) Acceptable: Whatman Protein Saver 903 filter paper, PerkinElmer 226 filter paper, Munktell filter paper, Postmortem Screening Card or collected with EDTA, sodium heparin, lithium heparin, or ACD B-containing devices Specimen Volume: 2 Blood spots Collection Instructions: 1. Let blood dry completely on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 2. At least 1 spot should be complete, (ie, unpunched). 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions. 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800).

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	10 days	FILTER PAPER
	Frozen	59 days	FILTER PAPER
	Ambient	10 days	FILTER PAPER

CPT Code Information: 82542

TQ10
63148

Coenzyme Q10, Total, Plasma

Specimen Requirements: Patient Preparation: Fasting: 8 hours, required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Green top (lithium or sodium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Plasma Collection Instructions: 1. Immediately after collection, place specimen on wet ice. Maintain on wet ice until processing. 2. Within 3 hours of collection, centrifuge, aliquot plasma into a plastic vial, and freeze immediately.

Specimen Minimum Volume: Plasma: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Heparin	Frozen (preferred)	60 days
	Refrigerated	7 days
	Ambient	4 days

CPT Code Information: 82542

GIP
63169

Gastrointestinal Pathogen Panel, PCR, Feces

Specimen Requirements: Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Preferred: Specific modified Cary-Blair transport system; see Additional Information for acceptable collection media Acceptable: Approved Cary-Blair transport system (15 mL of non-nutritive transport medium containing phenol red as a pH indicator) Specimen Volume: Representative portion of feces Collection Instructions: 1. Collect fresh fecal specimen and submit 1 gram or 5 mL in container with transport medium. 2. Within 2 hours of collection, place feces in preservative. 3. Submit preserved feces in original container. Do not aliquot. 4. If unpreserved specimens are received, testing will be canceled. Additional Information: If collection media other than those listed is utilized, testing may be canceled. Media listed have been verified for use by Mayo Clinic Laboratories. Modified Cary-Blair media: Preferred: Culture and Sensitivity Stool Transport Vial (T058) Acceptable: Meridian Para-Pak C and S, Cardinal Health Culture and Sensitivity Stool transport Vial Cary Blair media: Remel Cary-Blair, Remel; Protocol Cary-Blair

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 87507

BUPR
63222

Buprenorphine Screen with Reflex, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. Submit 5 mL in 1 plastic vial. 3. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test. 3. Submitting less than 5 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 80307

LNBAI
63249

Lyme Central Nervous System Infection IgG, Antibody Index, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see LNBAB / Lyme Central Nervous System Infection IgG with Antibody Index Reflex, Serum and Spinal Fluid. Both cerebrospinal fluid (CSF) and serum are required for this test. CSF and serum must be collected within 24 hours maximum of each other. CSF specimens with blood contamination will be rejected. Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 1.2 mL Collection Instructions: 1. A spinal fluid (CSF) sample of 1.2 mL needs to be collected within 24 hours of the serum specimen, preferably at the same time. 2. Label vial as spinal fluid or CSF. 3. CSF aliquot should be from the second, third, or fourth CSF vial collected during the lumbar puncture. Do not submit CSF from the first vial due to the possibility of blood contamination, which will cause specimen rejection. 4. Band specimens together. Specimen Type: Serum Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection

Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.2 mL Collection Instructions: 1. A serum sample of 1.2 mL needs to be collected within 24 hours of the spinal fluid specimen, preferably at the same time. 2. Centrifuge and aliquot serum into a plastic vial. 3. Label as serum. 4. Band specimens together.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	11 days
	Frozen	35 days

CPT Code Information: 86618 x 2; 82040; 82042; 82784 x 2;

NGSHM
63367

MayoComplete Myeloid Neoplasms, Comprehensive OncoHeme Next-Generation Sequencing, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Acceptable: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Extracted DNA from blood or bone marrow Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted within 14 days after collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of the DNA. Specimen Stability Information: Frozen (preferred)/Refrigerate/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Blood, Bone marrow: 1 mL Extracted DNA: 100 mcL at 20 ng/mcL concentration

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	14 days

CPT Code Information: 81450

MYEFL
63414

Myelodysplastic Syndrome, Flow Cytometry, Bone Marrow

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA), green top (heparin) Specimen Volume: 2-5 mL Slides: Include 1 to 2 unstained bone marrow smears labeled with 2 unique identifiers. Collection Instructions: 1. Submission of bilateral specimens is not required. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient	

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker x 1; 88185-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each) x18; 88189-Flow Cytometry Interpretation, 16 or More Markers (if appropriate);

2425D
63416

25-Hydroxyvitamin D:24,25-Dihydroxyvitamin D Ratio, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.7 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 82306; 82542;

ETGX
63418

Ethyl Glucuronide Confirmation, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain-of-custody kit containing the specimen containers, seals, and documentation is required. Specimen Volume: 5 mL Collection Instructions: Collect specimen in the provided container, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Submitting less than 5 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80307; G0480; 80321 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance; ;

ETGR
63419

Ethyl Glucuronide Screen with Reflex, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5 mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80307

ETGS
63420

Ethyl Glucuronide Screen, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5 mL tube Specimen Volume: 2 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80307

ETGC
63421

Ethyl Glucuronide Confirmation, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test. 3. Submitting less than 1 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: G0480 ; 80321 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance; ; ; ;

NUT1F
63431

NUTM1 (15q14) Rearrangement, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Tissue Container/Tube: Formalin-fixed, paraffin-embedded tumor tissue block Specimen Type: Slides Specimen

Volume: 4 Consecutive, unstained, 5 micron-thick sections placed on positively charged slides and 1 hematoxylin and eosin-stained slide Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: 2 consecutive, unstained, 5 micron- thick sections placed on positively charged slides, and 1 hematoxylin and eosin-stained slide.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x 2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271 x 2-DNA probe, each; each additional probe set (if appropriate); 88271 x 1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271 x 2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); ; 88271 x 3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274-w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

FGFR2
63432

FGFR2 (10q26.1) Rearrangement, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88291 - DNA probe, each (first probe set), Interpretation and report; 88271x2 - DNA probe, each; each additional probe set (if appropriate); 88271x1 - DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2 - DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3 - DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52 - Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274 - Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate) ; 88275 - Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

ETV6F
63433

ETV6 (12p13.2) Rearrangement, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2; 88291 -DNA probe, each (first probe set), Interpretation and report; 88271x2 -DNA probe, each; each additional probe set (if appropriate); 88271x1 -DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2 -DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3 -DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52 -Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274 -Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275 -Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

HSVC
63434

Herpes Simplex Virus (HSV), Molecular Detection, PCR, Spinal Fluid

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic vial Specimen Volume: 0.2 mL Collection Instructions: 1. Submit from second spinal fluid collection vial. 2. Transfer into aliquot vial using sterile technique. 3. Do not centrifuge or heat inactivate. Additional Information: 1. The high sensitivity of amplification by polymerase chain reaction (PCR) requires the specimen to be processed in an environment in which contamination of the specimen by herpes simplex virus DNA is not likely. 2. Specimens that are received with less than the minimum volume required for all testing requested will be canceled.

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87529 x 2; 87529 (if appropriate for government payers);

INFXR
63437

Infliximab Quantitation with Reflex to Antibodies to Infliximab,

Serum

Specimen Requirements: Patient Preparation: 1. Draw blood immediately before next scheduled dose (trough specimen). 2. For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 80230; 82397-(if appropriate);

LNBAB
63502

Lyme Central Nervous System Infection IgG with Antibody Index Reflex, Serum and Spinal Fluid

Specimen Requirements: Both spinal fluid (CSF) and serum are required for this test. CSF and serum must be collected within 24 hours (maximum) of each other. Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 1.2 mL Collection Instructions: 1. A CSF sample of 1.2 mL needs to be collected within 24 hours of the serum specimen, preferably at the same time. 2. Label vial as spinal fluid or CSF. 3. CSF aliquot should be from the second, third, or fourth CSF vial collected during the lumbar puncture. Do not submit CSF from the first vial due to the possibility of blood contamination, which will cause specimen rejection. 4. Band specimens together. Specimen Type: Serum Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.2 mL Collection Instructions: 1. A serum sample of 1.2 mL needs to be collected within 24 hours of the spinal fluid specimen, preferably at the same time. 2. Centrifuge and aliquot serum into a plastic vial. 3. Label as serum. 4. Band specimens together.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	11 days
	Frozen	35 days
Serum	Refrigerated (preferred)	11 days
	Frozen	35 days

CPT Code Information: 86618; 86618 x2-(if appropriate); 82040-(if appropriate); 82042-(if appropriate); 82784 x2-(if appropriate);

AMTRP
63506

Amitriptyline and Nortriptyline, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Collect specimen immediately before next scheduled dose (minimum 12 hours after last dose). 2. Within 2 hours of collection centrifuge and aliquot serum into a plastic vial. Serum must be separated from cells within 2 hours of collection.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 80299

DXPIN
63507

Doxepin and Nordoxepin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Collect specimen immediately before next scheduled dose (minimum 12 hours after last dose). 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. Serum must be separated from cells within 2 hours of collection.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 80299

IMIPR
63508

Imipramine and Desipramine, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Collect specimen immediately before next scheduled dose (minimum 12 hours after last dose). 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. Serum must be separated from cells within 2 hours of collection.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 80299

PTEM
63682

Platelet Transmission Electron Microscopic Study, Whole Blood

Specimen Type	Temperature	Time
Whole Blood ACD	Ambient	72 hours

CPT Code Information: 85390; 88348;

STRNG
63866

Strongyloides Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	30 days

CPT Code Information: 86682

CHIKM
63867

Chikungunya IgM, Antibody, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see CHIKV / Chikungunya IgM and IgG, Antibody, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 86790

CHIKG
63868

Chikungunya IgG, Antibody, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see CHIKV / Chikungunya IgM and IgG, Antibody, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 86790

PSAU
64061

Prostate-Specific Antigen (PSA) Ultrasensitive, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For red-top tubes, aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	180 days
	Refrigerated	14 days
	Ambient	7 days

CPT Code Information: 84153

CHIKV
64173

Chikungunya IgM and IgG, Antibody, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 86790 x2

HEX4
64174

Glucotetrasaccharides, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic, 5-mL urine tube Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	87 days
	Refrigerated	28 days
	Ambient	14 days

CPT Code Information: 82542; 82570;

TRMP
64269

Trimipramine, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Collect specimen immediately before next scheduled dose (minimum 12 hours after last dose). 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. Serum must be separated from cells within 2 hours of collection.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 80299

BIWB
64274

Bismuth, Blood

Specimen Requirements: ***This specimen container cannot be opened or used for any other testing before shipping.*** Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for at least 96 hours. Supplies: -Metal Free EDTA 3 mL Tube (T989) -Metal Free B-D Tube (EDTA), 6 mL (T183) Collection Container/Tube: Preferred: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (BD catalog no. 367777) Acceptable: Royal blue-top BD Vacutainer Plus with EDTA blood collection tube (6 mL) (BD catalog no. 368381) Specimen Volume: 0.25 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83018

MUSK
64277

Muscle-Specific Kinase (MuSK) Autoantibody, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86366

PLAFL
64278

Platelet Surface Glycoprotein, Flow Cytometry, Blood

Specimen Requirements: Supplies: Ambient Shipping Box-Critical Specimens Only (T668) Collection Container/Tube: ACD solution A or B Specimen Volume: 6 mL Pediatric Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Adult: 1 mL; Pediatric: 200 mcL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Ambient	4 days

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker; 88185-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each) X5; 88187-Flow cytometry interpretation, 2 to 8 markers;

CDIF
64354

Clostridioides difficile Culture, Varies

Specimen Requirements: Submit only 1 of the following specimens: Patient Preparation: Patient should not use antacids, barium, bismuth, antidiarrheal medication, zinc oxide paste, Vagisil cream or oily laxatives prior to specimen collection. Preferred: Specimen Type: Preserved feces Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of non-nutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S) Specimen Volume: Representative portion of feces; 5 mL Collection Instructions: 1. Collect fresh feces and submit 1 gram or 5 mL in container with transport medium. 2. Within 2 hours of collection, place feces in preservative. Specimen Stability Information: Ambient (preferred) 96 hours/Refrigerated 96 hours/Frozen 7 days Additional Information: Only diarrheal (ie, unformed) feces should be tested. Testing formed feces for Clostridioides difficile is generally not clinically indicated. Acceptable: Specimen Type: Unpreserved feces Supplies: -Stool container, Small (Random), 4 oz (T288) -Stool Collection Kit, Random (T635) Container/Tube: Stool container Specimen Volume: Representative portion of feces Collection Instructions: Collect fresh feces and submit representative sample in stool container. Specimen Stability Information: Ambient (preferred) 72 hours/Frozen 7 days Additional Information: Only diarrheal (ie, unformed) feces should be tested. Testing formed feces for Clostridioides difficile is generally not clinically indicated. Specimen Type: Fresh tissue or biopsy Sources: Colon Supplies: Anaerobe Transport Tube (T588) Specimen Volume: Entire collection, 1 to 2 cm(3) Collection Instructions: Aseptically collect 1 to 2 cm(3) piece of tissue whenever possible. In general, a larger piece of tissue is preferred. Submit in an anaerobic transport tube. Specimen Stability Information: Ambient 72 hours

Specimen Minimum Volume: Stool: 1 gram or 5 mL; Tissue: 5 mm(3)

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87081-C. difficile Culture; 87076-Anaerobe Ident (if appropriate); 87076-Id MALDI-TOF Mass Spec Anaerobe (if appropriate); 87153-Anaerobe Ident by Sequencing (if appropriate);

GALE
64372

Uridine Diphosphate-Galactose 4' Epimerase, Blood

Specimen Requirements: Multiple whole blood tests for galactosemia can be performed on 1

specimen. Prioritize order of testing when submitting specimens. For a list of tests that can be ordered together, see Galactosemia-Related Test List. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium or lithium heparin) or yellow top (ACD) Specimen Volume: 5 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	14 days
	Ambient	6 days

CPT Code Information: 82542

GDF15
64637

Growth Differentiation Factor 15, Plasma

Specimen Requirements: Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood and centrifuge immediately. 2. Aliquot plasma into plastic vial. 3. Do not expose specimen to heat or direct sunlight.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Refrigerated (preferred)	90 days
	Frozen	90 days
	Ambient	28 days

CPT Code Information: 83520

PBALP
64661

Porphobilinogen and Aminolevulinic Acid, Plasma

Specimen Requirements: Patient Preparation: Patient must not consume any alcohol for at least 24 hours prior to specimen collection. Supplies: Amber Frosted Tube, 5mL (T915) Collection Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Green top (lithium heparin), lavender top (EDTA), yellow top (ACD A or B) Submission Container/Tube: Amber vial Specimen Volume: 1 mL Collection Instructions: 1. It is recommended that specimen collection occur during the acute phase. Porphobilinogen and aminolevulinic acid may be normal when the patient is not exhibiting symptoms. 2. Centrifuge and aliquot plasma into plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Plasma	Frozen (preferred)	21 days	LIGHT PROTECTED
	Refrigerated	7 days	LIGHT PROTECTED

CPT Code Information: 82542; 82135;

PCRID
64706

Identification by PCR (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87150

TBIDS
64714

Culture Referred for Identification, Mycobacterium and Nocardia with Antimicrobial Susceptibility Testing, Varies

Specimen Requirements: Specimen Type: Organism in pure culture Supplies: Infectious Container, Large (T146) Container/Tube: Middlebrook (7H10 or 7H11) or Lowenstein-Jensen medium slant or in broth (eg, Mycobacteria Growth Indicator Tube [7H9] broth) Specimen Volume: Isolate Collection Instructions: Organism must be in pure culture, actively growing. Do not submit mixed cultures.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: Culture Referred for Identification, Mycobacterium; 87118-Identificaiton of mycobacteria; 87158-Identification of mycobacteria by other methods (if appropriate); 87118 -Id MALDI-TOF Mass Spec AFB (if appropriate); 87153-Mycobacteria Identification by Sequencing (if

appropriate); 87150-Id, Mtb Speciation, PCR (if appropriate); 87186-Susceptibility Rapid Grower (if appropriate); 87186-Susceptibility Slow Grower (if appropriate); 87186-Susceptibility Nocardia species (if appropriate); 87188 x 3-Antimicrobial Susceptibility, Mycobacterium tuberculosis Complex, Broth Method (if appropriate); 87186-Suscetpbility, Mtb Cx, 2nd Line (if appropriate); 87188-Susceptibility, Mycobacterium tuberculosis Complex, Pyrazinamide (if appropriate); 87153-Mtb PZA Confirmation, pncA Sequencing (if appropriate); 87150- Id, MTB complex Rapid PCR (if appropriate);

ACARP
64717

Acanthamoeba species, Molecular Detection, PCR, Ocular

Specimen Requirements: The preferred specimen for this test is corneal scraping or biopsy. Submit only 1 of the following specimens: Specimen Type: Fresh tissue Sources: Ocular Container/Tube: Sterile container Specimen Volume: 5-10 mm(3) Collection Instructions: Submit tissue in a sterile container with 1 mL of sterile saline, minimal essential media (MEM), or viral transport media. Preferred Paraffin-Embedded Tissue Block: Supplies: Tissue Block Container (T553) Specimen Type: Formalin-fixed, paraffin-embedded tissue block (FFPE) Sources: Ocular Container/Tube: Tissue block Collection Instructions: Submit a FFPE tissue block to be cut and returned. Acceptable Paraffin-Embedded Tissue Block: Specimen Type: Formalin-fixed, paraffin-embedded tissue (FFPE) section Sources: Ocular Container/Tube: Sterile container for each individual cut section (scroll). Collection Instructions: Perform microtomy and prepare five separate 10-micron sections. Each section (scroll) must be placed in a separate sterile container for submission. Specimen Type: Scrapings Sources: Eye, ocular, cornea Container/Tube: Sterile container Specimen Volume: 1 mL Collection Instructions: 1. Collect corneal scrapings using a scalpel or other sharp device to remove the outer layer of cells from the eye. 2. Swish the collection device in 1 mL of sterile saline, MEM, or viral transport media. 3. Remove the scalpel blade or sharp device from the collection container before submitting to the lab. 4. Specimens containing scalpel blades will be canceled. Specimen Type: Swabs Sources: Eye, ocular, cornea Container/Tube: Sterile container Specimen Volume: 1 mL Collection Instructions: 1. Swab must be placed into viral transport media and submitted with the specimen. 2. Specimens received without swabs will be canceled. Additional Information: Swabs are not the preferred specimen for this test and may yield false-negative results. Specimen Type: Contact lenses Container/Tube: Sterile container Specimen Volume: Entire collection Collection Instructions: 1. Place entire contact lens in a sterile container with 1 mL sterile saline, viral transport media, or MEM. 2. Right and left lenses must be submitted individually using multiple sterile containers or in the original contact lens case. A separate order must be created for each lens being tested. 3. Indicate Right or Left in the specimen source. Specimen Type: Contact lens cases without lenses Container/Tube: Sterile container Specimen Volume: 1 mL solution or entire case Additional Information: 1. Depending on the type of case submitted, it may be necessary to test right and left chambers individually. A separate order must be created for each chamber being tested. 2. Indicate Right or Left in the specimen source.

Specimen Minimum Volume: Scrapings: 0.5 mL; Other specimen types: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

FLARP
64718

Free-Living Amebae, Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Spinal fluid Container/Tube: Sterile container Specimen Volume: 0.5 mL Collection Instructions: Send vial number 2. Specimen Type: Tissue: Fresh Sources: Brain, skin, lung Container/Tube: Sterile container Specimen Volume: 5 to 10 mm Collection Instructions: Submit tissue in a sterile container with 1 mL of sterile saline or minimal essential media (MEM). Preferred: Paraffin-embedded tissue block: Supplies: Tissue Block Container (T553) Specimen Type: Formalin-fixed, paraffin-embedded tissue block (FFPE) Sources: Brain, skin, lung Container/Tube: Tissue block Collection Instructions: Submit a FFPE tissue block to be cut and returned. Acceptable: Paraffin-embedded tissue block: Specimen Type: Formalin-fixed, paraffin-embedded tissue block (FFPE) Sources: Brain, skin, lung Container/Tube: Sterile container for each individual cut section (scroll). Collection Instructions: Perform microtomy and prepare five separate 10-micron sections. Each section (scroll) must be placed in a separate sterile container for submission.

Specimen Minimum Volume: Spinal Fluid: 0.3 mL; Tissue: 5 mm biopsy

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798 x 3; 87999 (if appropriate for government payers);

SZMON
64749

Sezary Monitoring Flow Cytometry, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA), green top (sodium heparin) Specimen Volume: 6 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen as blood.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker x 1; 88185-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each) ; 88188-Flow Cytometry Interpretation, 9 to15 markers (if appropriate); 88189-Flow Cytometry Interpretation, 16 or more markers (if appropriate);

SZDIA
64750

Sezary Diagnostic Flow Cytometry, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA), green top (sodium heparin) Specimen Volume: 6 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen as blood.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker x 1; 88185-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each) ; 88188-Flow Cytometry Interpretation, 9 to15 markers (if appropriate); 88189-Flow Cytometry Interpretation, 16 or more markers (if appropriate);

PEANT
64756

Peanut, IgE with Reflex to Peanut Components, IgE, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 86003

CXLPL
64759

CXCR4 Mutation Analysis, Somatic, Lymphoplasmacytic Lymphoma/Waldenstrom Macroglobulinemia, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD),

green top (sodium heparin) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 10 days /Refrigerated 10 days Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD), green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Stability Information: Ambient (preferred) 10 days/Refrigerated 10 days Specimen Type: Paraffin-embedded tissue Container/ Tube: Paraffin block Collection Instructions: 1. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. 2. Indicate specimen source. Specimen Stability Information: Ambient Additional Information: If the quality of the biopsy specimen is poor, testing should not be ordered. Testing may be canceled if DNA requirements are inadequate. Acceptable Specimen Type: Tissue slide Slides: 20 Unstained slides Container/ Tube: Transport in plastic slide holders Collection Instructions: 1. Send 20 unstained, nonbaked slides with 5-micron thick sections of tissue. 2. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. 3. Indicate specimen source. Specimen Stability Information: Ambient Additional Information: 1. Testing may be canceled if resultant extracted DNA does not meet concentration requirements. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Frozen tissue Container/Tube: Plastic container Specimen Volume: 100 mg Collection Instructions: 1. Freeze tissue within 1 hour of collection 2. Indicate specimen source. Specimen Stability Information: Frozen Additional Information: Testing may be canceled if resultant extracted DNA does not meet concentration requirements. Specimen Type: Extracted DNA Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of DNA on label. Specimen Stability Information: Frozen (preferred)/Refrigerated/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood, bone marrow aspirate, 0.5 mL; Frozen tissue: 50 mg; Extracted DNA: 50 mcL at 20 ng/mcL; Tissue slides: 10 unstained slides

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	10 days

CPT Code Information: 81479

PRKAF
64777

Fibrolamellar Carcinoma, 19p13.1 (PRKACA) Rearrangement, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Tissue Container/Tube: Formalin-fixed, paraffin-embedded tumor tissue block Specimen Type: Slides Slides/Slide Count: Three consecutive, unstained, 5 micron-thick sections placed on positively charged slides, and 1 hematoxylin and eosin-stained slide Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site

will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Two consecutive, unstained, 5 micron-thick sections placed on positively charged slides, and 1 hematoxylin and eosin-stained slide.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271x2-DNA probe, each; each additional probe set (if appropriate); 88271x1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274-w/modifier 52 -Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate) ; 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

EXHD
64779

Hematologic Disorders, DNA Extract and Hold, Varies

Specimen Requirements: Specimen must arrive within 7 days of collection. Collect and package specimen as close to shipping time as possible. Submit only 1 of the following specimens: Specimen Type: Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: Blood, Bone Marrow: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	7 days	PURPLE OR PINK TOP/EDTA
	Refrigerated	7 days	PURPLE OR PINK TOP/EDTA

CPT Code Information:

BORDG
64780

Bordetella pertussis Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	30 days

CPT Code Information: 86615

ADALX
64863

Adalimumab Quantitative with Reflex to Antibody, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7) Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Draw blood immediately before the next dose of drug administration (trough specimen). 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 80145; 83520 (if appropriate);

AHUSD
64881

Atypical Hemolytic Uremic Syndrome Complement Panel, Serum and Plasma

Specimen Requirements:

Specimen Minimum Volume: Serum: 1.5 mL; Plasma: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	14 days
Serum	Frozen	14 days

CPT Code Information: 86160 x 6; 86161; 86162;

OLIGU
64889

Oligosaccharide Screen, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 8 mL Pediatric Volume: 2 mL Collection Instructions: 1. Collect a random urine specimen. 2. No added preservative. 3. Immediately freeze specimen.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	365 days
	Refrigerated	15 days
	Ambient	7 days

CPT Code Information: 84377

RBCME
64897

Red Blood Cell Membrane Evaluation, Blood

Specimen Requirements: Both patient and shipping control specimens are required. For complete instructions, refer to Specimen Collection and Labeling Instructions for Osmotic Fragility Testing of Erythrocytes. Shipping Control Specimen Specimen Type: Whole blood (non-patient) Container/Tube: Lavender top (EDTA) Specimen Volume: 4 mL Collection Instructions: 1. Collect a shipping control specimen from a healthy person unrelated to the patient at the same time (or within 4 hours) as the patient specimen. Note: The shipping control specimen can be collected from a phlebotomist, volunteer or another heathy patient. 2. Clearly handwrite "CONTROL" on the outermost label of the tube. 3. Refrigerate (or place on cold gel pack/small amount of wet ice) immediately after collection. 4. Send shipping control in the original tube. Do not aliquot. 5. Keep the shipping control and the patient specimens together, either rubber banded or in a bag. Additional Information: 1. The shipping control and patient specimens must be handled identically from the time of collection through receipt in the testing laboratory. 2. If the shipping control is not sent with the patient specimen, test cancellation is likely. 3. The shipping control specimen evaluates whether the patient result has been compromised by handling conditions such as temperature, motion, or other transportation interferences, as temperature and handling extremes can adversely impact the integrity of the specimen. Patient Specimen Specimen Type: Whole

blood Container/Tube: Lavender top (EDTA) Specimen Volume: 4 mL Collection Instructions: 1. Collect and label patient specimen. 2. Refrigerate (or place on cold gel pack/small amount of wet ice) specimen immediately after collection. 3. Send whole blood specimen in the original tube. Do not aliquot. 4. Keep the shipping control and the patient specimens together, either rubber banded or in a bag. Additional Information: The shipping control and patient specimens must be handled identically from the time of collection through receipt in the testing laboratory. Patient Specimen Specimen Type: Slides Container/Tube: Blood smears Specimen Volume: 2 Well-made peripheral blood smears Collection Instructions: 1. Prepare 2 peripheral blood smears from the EDTA tube collected from the patient. 2. Either stain the smear with Wright stain or fix the smear with absolute methanol prior to shipping. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Whole blood patient/Shipping control: 2 mL; Slides: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Control	Refrigerated	72 hours	PURPLE OR PINK TOP/EDTA
Whole Blood EDTA	Refrigerated	72 hours	
Whole Blood Slide	Refrigerated	CARTRIDGE	

CPT Code Information: 85557-Osmotic fragility; 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker x 1; 85060-Morphology review;

LDALD
64907

Lysosomal and Peroxisomal Disorders Newborn Screen, Blood Spot

Specimen Requirements: Patient must be older than 24 hours and younger than 1 week. Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: PerkinElmer 226 filter paper, Munktell filter paper, Whatman Protein Saver 903 Paper, local newborn screening card, or blood collected in tubes containing ACD, or EDTA and then spotted and dried on filter paper Specimen Volume: 2 Blood spots Collection Instructions: 1. Completely fill at least 2 circles on the filter paper card (approximately 100 microliters blood per circle). 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	90 days	FILTER PAPER
	Frozen	90 days	FILTER PAPER
	Ambient	28 days	FILTER PAPER

CPT Code Information: 83789

CHFXH
64922

Chromosome Analysis, Hematologic Disorders, Fixed Cells

Specimen Requirements: Specimen Volume: 2 mL Additional Information: Advise Express Mail or equivalent if not on courier service.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88291- Interpretation and report; 88264 w/ modifier 52-Chromosome analysis with less than 20 cells (if appropriate); 88264-Chromosome analysis with 20 to 25 cells (if appropriate); 88264, 88285-Chromosome analysis with greater than 25 cells (if appropriate); 88283-Additional specialized banding technique (if appropriate);

NR4A3
64940

NR4A3 (9q22.33) Rearrangement, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 4 unstained Collection Instructions: Submit 1 slide stained with hematoxylin and eosin and 4 consecutive unstained, positively charged, unbaked slides with 5-micron-thick sections of the tumor tissue. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x 2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271 x 2-NA probe, each; each additional probe set (if appropriate); 88271 x 1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271 x 2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271 x 3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

MSMRT 64946 Mayo Algorithmic Approach for Stratification of Myeloma and Risk-Adapted Therapy Report, Bone Marrow

Specimen Requirements: Specimen Type: Redirected bone marrow Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (heparin) Specimen Volume: 4 mL

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	72 hours
	Refrigerated	72 hours

CPT Code Information: 88182-Flow cytometry, cell cycle or DNA analysis; 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker; 88185 x 5-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each); 88187-Flow cytometry interpretation, 2 to 8 Markers;

HCQ 64947 Hydroxychloroquine, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Collect specimen immediately before next scheduled dose. 2. Within 2 hours of collection, centrifuge, and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	21 days

CPT Code Information: 80220

BMIYC
64969

Borrelia miyamotoi Detection PCR, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: Submit aliquot from collection vial 2.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87478

TFEBF
64973

Renal Cell Carcinoma, 6p21.1 (TFEB) Rearrangement, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded (FFPE) tumor tissue block. Blocks prepared with alternative fixation methods will be attempted but are less favorable for successful results by FISH testing. 2. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Bone specimens that have been decalcified will be attempted for testing, but the success rate is approximately 50%. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 4 unstained Collection Instructions: Submit 4 consecutive unstained, positively charged, unbaked slides with 5 micron-thick sections of the tumor tissue and 1 slide stained with hematoxylin and eosin. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x 2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271 x 2-DNA probe, each; each additional probe set (if appropriate); 88271 x 1-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271 x 2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271 x 3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

BILHA
65019

Schistosoma species Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	30 days

CPT Code Information: 86682

CH9
65029

Chromogenic Factor IX Activity Assay, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85130

VDSFQ
65036

VDRL Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see VDSF / VDRL, Spinal Fluid. Collection Container/Tube: Sterile vial Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Submit specimen collected in vial 2 if possible. If not, note from which vial the aliquot was obtained.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	14 days
	Refrigerated	14 days

CPT Code Information: 86593

HGBCE
65039

Hemoglobin Variant, A2 and F Quantitation, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Submit fresh specimen. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	10 days

CPT Code Information: 83020

CZPS
65044

Clonazepam and 7-Aminoclonazepam, Serum

Specimen Requirements: Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.2 mL Collection Instructions: 1. Draw blood immediately before next scheduled dose (minimum 12 hours after last dose). 2. Within 2 hours of collection, the specimen must be centrifuged and the serum aliquoted into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80299

BRBPS
65058

Broad Range Bacterial PCR and Sequencing, Varies

Specimen Requirements: Fresh tissue is generally preferred over formalin-fixed, paraffin-embedded tissue, but either can be tested. Submit only 1 of the following specimens: Preferred: Specimen Type: Fresh tissue or biopsy Sources: Normally sterile tissue such as bone, lymph node, joint, heart valve, brain, viscera, organ, lung, prostate Container/Tube: Sterile container Specimen Volume: Entire collection or 5 mm(3)-approximately the size of a pencil eraser Collection Instructions: 1. Collect fresh tissue specimen. 2. Submit tissue only, do not add fluid (eg, saline, broth, formalin, formaldehyde, acetone) to tissue. Body fluid accompanying tissue is acceptable. 3. Freeze specimen. Specimen Stability Information: Frozen (preferred) 21 days/Refrigerated 21 days Acceptable: Preferred: Paraffin-embedded tissue block Supplies: Tissue Block Container (T553) Specimen Type: Formalin-fixed, paraffin-embedded (FFPE) tissue block Source: Normally sterile or deep tissues such as bone, lymph node, joint, heart valve, brain, viscera, organ, lung, prostate Container/Tube: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block to be cut and returned. Specimen Stability Information: Ambient (preferred)/Refrigerated Acceptable: Paraffin-embedded tissue block Specimen Type: Section (scrolls) of FFPE tissue block Source: Normally sterile or deep tissues such as bone, lymph node, joint, heart valve, brain, viscera, organ, lung, prostate Container/Tube: Sterile container for each individual cut section (scroll) Collection Instructions: Perform microtomy and prepare five separate 10-micron sections. Each section (scroll) must be placed in a separate sterile container for submission. Specimen Stability Information: Ambient (preferred)/Refrigerated Specimen Type: Fluid Sources: Normally sterile body fluids such as vitreous humor, pleural, abdominal, peritoneal, ascites, pericardial, pelvic, prostatic Container/Tube: Screw-capped, sterile container Specimen Volume: 0.5 mL Collection Instructions: 1. Collect fresh fluid specimen. 2. Freeze specimen. Specimen Stability Information: Frozen (preferred) 21 days/Refrigerated 21 days Specimen Type: Spinal fluid Container/Tube: Screw-capped, sterile container Specimen Volume: 0.5 mL Collection Instructions: 1. Collect fresh spinal fluid (CSF) specimen using sterile technique. 2. Submit specimen from collection vial 2 or higher, specimens in vial 1 are not acceptable. 3. Indicate on the label which vial is being submitted. 4. CSF collected by lumbar puncture is preferred. CSF collected via shunt and ventricular fluid are also acceptable; label tube with applicable collection information if submitting nonlumbar puncture collected CSF. Specimen Stability Information: Frozen (preferred) 21 days/Refrigerated 21 days Specimen Type: Synovial fluid Container/Tube: Preferred: Red top or sterile container Acceptable: Lavender top (EDTA), pink top (EDTA), royal blue top (EDTA), or sterile vial containing EDTA-derived aliquot Specimen Volume: 0.5

mL Collection Instructions: Send specimen in original tube (preferred). Specimen Stability Information: Frozen (preferred) 21 days/Refrigerated 21 days

Specimen Minimum Volume: Fluid: 0.2 mL; Fresh tissue or biopsy: 5 mm(3); Paraffin-embedded tissue block: two 10-micron sections

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87801-Broad Range Bacterial PCR and Sequencing; 87798-Specimen Identification by PCR (if appropriate); 87798-Ident by Next Generation Sequencing (if appropriate); 87483-Meningitis Encephalitis Panel, PCR (if appropriate); 87999-Joint Infection Panel, PCR, Synovial Fluid (if appropriate);

PNRCH
65061

Drug Immunoassay Panel, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see: ADMPU / Addiction Medicine Profile with Reflex, 22 Drug Classes, High Resolution Mass Spectrometry and Immunoassay Screen, Random, Urine CSMEU / Controlled Substance Monitoring Enhanced Profile with Reflex, 21 Drug Classes, High Resolution Mass Spectrometry and Immunoassay Screen, Random, Urine CSMPU / Controlled Substance Monitoring Panel, Random, Urine

Specimen Minimum Volume: 10 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 80307

NGAML
65089

MayoComplete Acute Myeloid Leukemia, 11-Gene Panel, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 14

days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Acceptable: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Extracted DNA from blood or bone marrow Container/Tube: 1.5 to 2 mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted within 14 days after collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of the DNA. Specimen Stability Information: Frozen (preferred)/Refrigerated/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood, one marrow: 1 mL; Extracted DNA: 100 mcL at 20 ng/mcL concentration

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	14 days

CPT Code Information: 81450

EMAT
65091

Endomysial Antibodies, IgA, Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see EMA / Endomysial Antibodies, IgA, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 86231

MPSBS
65095

Mucopolysaccharidosis, Blood Spot

Specimen Requirements: Patient Preparation: For 6 hours before specimen collection, patient should not receive heparin. Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Collection Container: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 paper, PerkinElmer 226 filter paper, Munktell filter paper, local newborn screening card, postmortem screening card, or blood collected in tubes containing ACD or EDTA and dried on filter paper Specimen Volume: 2 Blood spots Collection Instructions 1. Do not collect specimen from a line that may have been used to infuse heparin or has been flushed with heparin. 2. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect Dried Blood Spot Samples. 3. Completely fill at least 2 circles on the filter paper card (approximately 100 microliters blood per circle). 4. Let blood dry on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 5. Do not expose specimen to heat or direct sunlight. 6. Do not stack wet specimens. 7. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	100 days	FILTER PAPER
	Frozen	100 days	FILTER PAPER
	Refrigerated	100 days	FILTER PAPER

CPT Code Information: 83864

BRAFB
65100

Cell-Free DNA BRAF V600, Blood

Specimen Requirements: Supplies: Streck Black/Tan Top Tube Kit (T715) Container/Tube: Streck Cell-Free DNA blood collection kit Specimen Volume: Two 10-mL Streck Cell-Free DNA blood collection tubes Additional Information: Only blood collected in Streck Cell-Free DNA tubes will be accepted for analysis. Whole blood will be processed to produce platelet-poor plasma before cfDNA isolation.

Specimen Minimum Volume: One 10 mL Streck cell-free DNA blood collection tube

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81210

EXHR
65114

Hematologic Disorders, DNA and RNA Extract and Hold, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: Blood: 8 mL Bone Marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	5 days	PURPLE OR PINK TOP/EDTA
	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information:

MPNCM
65115

Myeloproliferative Neoplasm, CALR with Reflex to MPL, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole Blood Container/Tube: Lavender top (EDTA) or yellow top (ACD-B) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Stability Information: Ambient (preferred)/Refrigerate Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) or yellow top (ACD-B) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred)/Refrigerate Specimen Type: Extracted DNA from blood or bone marrow Container/Tube: 1.5 to 2 mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted from blood or bone marrow within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of the DNA. Specimen Stability Information: Frozen (preferred) 1 year/Refrigerate/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood, bone marrow: 0.5 mL; Extracted DNA: 50 mcL at 20 ng/mcL concentration

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	7 days

CPT Code Information: 81219-CALR (calreticulin) (eg, myeloproliferative disorders), gene analysis, common variants in exon 9; 81339 -MPL (MPL proto-oncogene, thrombopoietin receptor) (eg, myeloproliferative disorder) gene analysis; sequence analysis, exon 10 (if appropriate);

PVJAK 65116 Polycythemia Vera, JAK2 V617F with Reflex to JAK2 Exon 12-15, Sequencing for Erythrocytosis, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD-B) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Type: Bone marrow aspirate Container/Tube: Lavender top (EDTA) or yellow top (ACD-B) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: Whole blood: 8 mL; Bone marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	5 days
	Ambient	5 days

CPT Code Information: 81270-JAK2 V617; 0027U (if appropriate);

PGN 65119 Pregabalin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Collect specimen immediately before next scheduled dose. 2. Within 2 hours of collection, centrifuge, and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

MHBRP 65129 Metamycoplasma hominis, Molecular Detection, PCR, Blood

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Metamycoplasma hominis DNA is unlikely. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Royal blue top (EDTA), pink top (EDTA), or sterile vial containing EDTA-derived aliquot Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube (preferred). Do not aliquot.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

URBRP 65133 Ureaplasma species, Molecular Detection, PCR, Blood

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Ureaplasma DNA is not likely. Container/Tube: Preferred Lavender top (EDTA) Acceptable: Royal blue top (EDTA), pink top (EDTA), or sterile vial containing EDTA-derived aliquot Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube (preferred)

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798 x 2; 87999 (if appropriate for government payers);

MHPRP 65134 Metamycoplasma hominis, Molecular Detection, PCR, Plasma

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Metamycoplasma hominis DNA is unlikely. Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Royal blue top (EDTA), pink top (EDTA) Submission Container/Tube: Screw-capped, sterile container Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot plasma into a sterile vial within 24 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

URPRP 65135 Ureaplasma species, Molecular Detection, PCR, Plasma

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Ureaplasma DNA is unlikely. Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Royal blue top (EDTA), pink top (EDTA), or sterile vial containing EDTA-derived aliquot Submission Container/Tube: Screw-capped, sterile container Specimen Volume: 1 mL Plasma Collection Instructions: Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798 x 2; 87999 (if appropriate for government payers);

PUPYP
65151

Purines and Pyrimidines Panel, Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	90 days

CPT Code Information: 82542

3MT
65157

3-Methoxytyramine, 24 Hour, Urine

Specimen Requirements: Patient Preparation: Tricyclic antidepressants, labetalol, and sotalol medications may elevate levels of catecholamines producing results that cannot be interpreted. If clinically feasible, it is optimal to discontinue these medications at least 1 week before collection. Levodopa (Sinemet) medication will cause false-positive results. For advice on assessing the risk of removing patients from these medications and alternatives, consider consultation with a specialist in endocrinology or hypertension. Supplies: Urine Tubes, 10 mL (T068) Submission Container/Tube: Plastic urine tube Specimen Volume: 10 mL Collection Instructions: 1. Complete 24-hour urine collections are preferred, especially for patients with episodic hypertension; ideally the collection should begin at the onset of a "spell." 2. Add 10 g (pediatric: 3 g) of boric acid or 25 mL (pediatric: 15 mL) of 50% acetic acid as preservative at start of collection. 3.Collect urine for 24 hours. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	21 days

CPT Code Information: 82542

META3
65158

Metanephrines with 3-Methoxytyramine, 24 Hour, Urine

Specimen Requirements: Patient Preparation: Tricyclic antidepressants, labetalol, and sotalol medications may elevate levels of metanephrines producing results that cannot be interpreted. If clinically feasible, it is optimal to discontinue these medications at least 1 week before collection. For advice on assessing the risk of removing patients from these medications and alternatives, consider consultation with a specialist in endocrinology or hypertension. Supplies: Urine Tubes, 10 mL (T068) Submission Container/Tube: Plastic urine tube Specimen Volume: 10 mL Collection Instructions: 1. Complete 24-hour urine collections are preferred, especially for patients with episodic hypertension; ideally the collection should begin at the onset of a "spell." 2. Add 10 g (pediatric: 3 g) of boric acid or 25 mL (pediatric: 15 mL) of 50% acetic acid as preservative at start of collection. 3. Collect urine for 24 hours. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	21 days

CPT Code Information: 82542; 83835;

NAIFA
65161

Antinuclear Antibodies, HEp-2 Substrate, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	28 days

CPT Code Information: 86039

BTWGS
65162

Bacterial Typing, Whole Genome Sequencing, Varies

Specimen Requirements: Aerobic Bacteria Preferred: Specimen Type: Bacterial isolate swab Supplies: E-swab (T853) Infectious Container, Large (T146) Container/Tube: Preferred: E-Swab collection and transport system Acceptable: Flocked swab and 1-mL liquid Amies transport medium in 12 x 80 mm tube. Collection Instructions: 1. Perform isolation of infecting bacteria (must be Acinetobacter baumannii, Campylobacter jejuni/coli, Enterobacter cloacae, Enterococcus faecalis, Enterococcus faecium, Escherichia coli, Klebsiella pneumoniae, Legionella pneumophila, Pseudomonas aeruginosa, Serratia marcescens, Staphylococcus aureus, Staphylococcus epidermidis, Staphylococcus lugdunensis, Streptococcus agalactiae, or Streptococcus pyogenes). 2. Utilize the flocked swab to obtain an adequate sample of pure cultured isolate. Do not submit mixed cultures. 3. Place swab into the transport system containing 1-mL liquid Amies transport medium. 4. If needed, break off end of swab and close the transport tube. 5. Place the transport system into the secondary infectious container for shipment. 6. Each isolate must be submitted under a separate order. Acceptable: Specimen Type: Pure culture of organism from source cultured Supplies: Infectious Container, Large (T146) Container/Tube: Agar slant or other appropriate media Collection Instructions: 1. Perform isolation of bacterial isolate. 2. Organism must be in pure culture, actively growing. Do not submit mixed cultures. 3. Place the agar slant or other appropriate media into the secondary infectious container for shipment 4. Each isolate must be submitted under a separate order. Anaerobic Bacteria Supplies: Anaerobe Transport Tube (T588) Infectious Container, Large (T146) Container/Tube: Preferred: Anaerobic transport tube Acceptable: Thioglycollate broth or any other suitable anaerobic transport system Specimen Volume: Isolates in separate transport tubes in pure culture Collection Instructions: 1. Isolate the bacteria (must be Clostridioides difficile or Cutibacterium [Propionibacterium] acnes). 2. Do not submit growth directly from a CHROMagar plate; subculture to anaerobic media to obtain pure isolate and confirm identification prior to submission. 3. Bacterial isolate must be in pure culture, actively growing. Do not submit mixed cultures. 4. Each isolate must be submitted under a separate order.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 0010U-Bacterial Typing, Whole Genome Seq; 87900-Bioinformatics Reanalysis (if appropriate); 87077-Ident by MALDI-TOF mass spec (if appropriate); 87153-Aerobe ident by sequencing (if appropriate); 87077-Additional identification procedure (if appropriate); 87076-Id MALDI-TOF mass spec anaerobe (if appropriate); 87076-Anaerobe Ident (if appropriate); 87153-Anaerobe ident by sequencing (if appropriate);

LNORO
65170

Norovirus PCR, Molecular Detection, Feces

Specimen Requirements: Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of non-nutritive transport medium - either Cary-Blair, Para-Pak Culture and Sensitivity Media) Specimen Volume: Representative portion of diarrheal fecal sample, 1 gram or 5 mL Collection Instructions: 1. Collect fresh feces and place in preservative within 1 hour of collection. 2. Visibly formed feces are not consistent with Norovirus gastrointestinal disease and should not be submitted for testing.

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Ambient	7 days

CPT Code Information: 87798 x 2

LEPDT
65183

Leptospira, IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.3 mL Serum Collection Instructions: Centrifuge and aliquot serum into plastic vial. Additional Information: If acute and convalescent specimens are being obtained to determine seroconversion, they should be collected 2 or more weeks apart.

Specimen Minimum Volume: Serum 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	30 days

CPT Code Information: 86720

TPMT3
65188

Thiopurine Methyltransferase Activity Profile, Erythrocytes

Specimen Requirements: Patient Preparation: Thiopurine methyltransferase (TPMT) enzyme activity can be inhibited by several drugs and may contribute to falsely low results. Patients should abstain from the following drugs for at least 48 hours prior to TPMT testing: naproxen (Aleve), ibuprofen (Advil, Motrin), ketoprofen (Orudis), furosemide (Lasix), sulfasalazine (Azulfidine), mesalamine (Asacol), olsalazine (Dipentum), mefenamic acid (Ponstel), trimethoprim (Proloprim), methotrexate, thiazide diuretics, and benzoic acid inhibitors. Container/Tube: Preferred: Lavender top (EDTA)

Acceptable: Green top (sodium or lithium heparin), dark blue top (metal free sodium heparin), or non-centrifuged plasma gel tubes Specimen Volume: 5 mL Collection Instructions: Send whole blood specimen. Do not centrifuge.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 84433

KKRP
65201

Kingella kingae, Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Kingella kingae DNA is unlikely. Submit only 1 of the following specimens: Specimen Type: Synovial fluid Preferred: Lavender top (EDTA) Acceptable: Pink top (EDTA), royal blue top (EDTA), sterile vial containing EDTA-derived aliquot, red clot tube (no anticoagulant), or sterile container Specimen Volume: 0.5 mL Collection Instructions: Send specimen in original tube (preferred). Specimen Stability Information: Refrigerated (preferred) <7 days /Frozen <7 days Specimen Type: Fresh tissue or biopsy Sources: Bone, joint, synovium, heart valve, aorta, or endocardium Container/Tube: Sterile container Specimen Volume: Entire collection or 5 mm(3)- approximately the size of a pencil eraser Collection Instructions: 1. Collect fresh tissue specimen. 2. Submit tissue only, do not add fluid to tissue 3. Refrigerate or freeze specimen. Specimen Stability Information: Refrigerated (preferred) <7 days/ Frozen <7 days Preferred Paraffin-embedded tissue block: Specimen Type: Formalin-fixed, paraffin-embedded tissue block (FFPE) Sources: Bone, joint, synovium, heart valve, aorta, or endocardium Supplies: Tissue Block Container (T553) Container/Tube: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block to be cut and returned. Specimen Stability Information: Ambient (preferred)/Refrigerated Acceptable Paraffin-embedded tissue block: Specimen Type: Formalin-fixed, paraffin-embedded tissue block (FFPE) Sources: Bone, joint, synovium, heart valve, aorta, or endocardium Container/Tube: Sterile container for each individual cut section (scroll). Collection Instructions: Perform microtomy and prepare five separate 10-micron sections. Each section (scroll) must be placed in a separate sterile container for submission. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: Fluid/fresh tissue or biopsy: See Specimen Required Paraffin-embedded tissue block: Two 10-micron sections

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87798

KKBRP
65202

Kingella kingae, Molecular Detection, PCR, Blood

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Kingella kingae DNA is unlikely. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Royal blue top (EDTA), pink top (EDTA), or sterile vial containing EDTA-derived aliquot Specimen Volume: 1 mL Collection Instructions: Send specimen in original tube (preferred).

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

BUPMX
65215

Buprenorphine and Norbuprenorphine, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain of custody kit containing specimen containers, seals, and required documentation. Specimen Volume: 5 mL Collection Instructions: Collect specimen in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: G0480; 80348 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance; ; ;

MRDMM 65218 Multiple Myeloma Measurable Residual Disease (MRD), Flow Cytometry, Bone Marrow

Specimen Requirements: Specimen Type: Redirected bone marrow Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	72 hours
	Refrigerated	72 hours

CPT Code Information: 88184-Flow Cytometry; first cell surface, cytoplasmic or nuclear marker; 88185 x 9-Flow Cytometry; additional cell surface, cytoplasmic or nuclear marker; 88188-Flow Cytometry Interpretation, 9 to 15 Markers;

BCRFX 65248 BCR::ABL1 Qualitative Diagnostic Assay with Reflex to BCR::ABL1 p190 Quantitative Assay or BCR::ABL1 p210 Quantitative Assay, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: Whole blood: 8 mL; Bone marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	72 hours	PURPLE OR PINK TOP/EDTA
	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81206; 81207; 81208;

PD2T
65296

Pompe Disease Second-Tier Newborn Screening, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: PerkinElmer 226 filter paper, Munktell filter paper, Whatman Protein Saver 903 paper, local newborn screening card, or blood collected in tubes containing ACD or EDTA and then spotted and dried on filter paper. Specimen Volume: 3 Blood spots Collection Instructions: 1. Completely fill at least 3 circles on the filter paper card (approximately 100 microliters blood per circle). 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions. 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800).

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	90 days
	Frozen	90 days
	Ambient	28 days

CPT Code Information: 83789

THIO
65381

Thiopurine Metabolites, Whole Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot, centrifuge, or freeze.

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	8 days
	Ambient	24 hours

CPT Code Information: 80299

MACNT
65405

Macadamia Nut, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top

Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TLBLF
65413

T-Cell Lymphoblastic Leukemia/Lymphoma, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin stained and 2 unstained for each probe set Collection Instructions: 1. Include 1 hematoxylin and eosin-stained slide for the entire test order. 2. If individual probe sets are chosen: For each probe set ordered, submit 2 consecutive, unstained, 5 micron-thick sections placed on positively charged slides. 3. If a complete T-lymphoblastic leukemia/lymphoma (TLBL) panel is ordered: submit 16 consecutive, unstained, 5 micron-thick sections placed on positively charged slides. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x 2, 88291-DNA probe, each (first probe set), Interpretation and report; 88271 x 2-DNA probe, each; each additional probe set (if appropriate); 88271-DNA probe, each;

coverage for sets containing 3 probes (if appropriate); 88271 x 2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271 x 3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

CORTF
65423

Cortisol, Free, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.25 mL Collection Instructions: 1. Morning (8 a.m.) specimens are preferred. The 8 a.m. cortisol can be referred to as the a.m. cortisol and can be collected any time between 6 a.m. and 10:30 a.m. in the morning. 2. Centrifuge and aliquot serum into a plastic vial. Additional Information: If multiple specimens are collected, send a separate order for each specimen.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82530

PALD
65424

Aldosterone, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Plasma Collection Instructions: 1. See Renin-Aldosterone Studies for detailed instructions. 2. The recommended collection time is 8 a.m., after the patient is active for approximately 2 hours. Try to collect the specimen as close to that time as possible and no later than 10 a.m. 3. Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	28 days
	Frozen	30 days
	Ambient	4 days

CPT Code Information: 82088

APIVC
65425

Aldosterone, Inferior Vena Cava, Plasma

Specimen Requirements: Patient Preparation: Spironolactone (Aldactone) should be discontinued for 4 to 6 weeks before specimen collection. The plasma renin activity cannot be interpreted if the patient is being treated with spironolactone. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.6 mL Plasma Collection Instructions: 1. See Renin-Aldosterone Studies for detailed instructions. 2. The recommended collection time is 8 a.m., after the patient is active for approximately 2 hours. Try to collect the specimen as close to that time as possible and no later than 10 a.m. 3. Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma:1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	30 days
	Refrigerated	28 days
	Ambient	4 days

CPT Code Information: 82088

APRAV
65426

Aldosterone, Right Adrenal Vein, Plasma

Specimen Requirements: Patient Preparation: Spironolactone (Aldactone) should be discontinued for 4 to 6 weeks before specimen collection. The plasma renin activity cannot be interpreted if the patient is being treated with spironolactone. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.6 mL Plasma Collection Instructions: 1. See Renin-Aldosterone Studies for detailed instructions. 2. The recommended collection time is 8 a.m., after the patient is active for approximately 2 hours. Try to collect the specimen as close to that time as possible and no later than 10 a.m. 3. Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	30 days
	Refrigerated	28 days
	Ambient	4 days

CPT Code Information: 82088

APLAV
65427

Aldosterone, Left Adrenal Vein, Plasma

Specimen Requirements: Patient Preparation: Spironolactone (Aldactone) should be discontinued for 4 to 6 weeks before specimen collection. The plasma renin activity cannot be interpreted if the patient is being treated with spironolactone. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.6 mL Plasma Collection Instructions: 1. See Renin-Aldosterone Studies for detailed instructions. 2. The recommended collection time is 8 a.m., after the patient is active for approximately 2 hours. Try to collect the specimen as close to that time as possible and no later than 10 a.m. 3. Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	30 days
	Refrigerated	28 days
	Ambient	4 days

CPT Code Information: 82088

CLOBZ
65483

Clobazam and Metabolite, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Collect blood immediately before next scheduled dose. 2. Within 2 hours of collection centrifuge and aliquot serum into a plastic vial. Additional Information: Trough specimens are recommended as therapeutic ranges are based on specimens collected at trough (ie, immediately before the next dose).

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: G0480; 80339 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

CORTO
65484

Cortisol, Free and Total, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.85 mL Collection Instructions: 1. Morning (8 a.m.) specimens are preferred. The 8 a.m. cortisol can be referred to as the a.m. cortisol and can be collected anywhere between 6 a.m. and 10:30 a.m. in the morning. 2. Centrifuge and aliquot serum into a plastic vial. Additional Information: If multiple specimens are collected, send separate order for each specimen.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82530; 82533;

CDGN
65485

Congenital Disorders of N-Glycosylation, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.15 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	45 days
	Ambient	7 days

CPT Code Information: 83789

LGB3S
65532

Globotriaosylsphingosine, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Refrigerated	48 hours

CPT Code Information: 82542

HBVQN
65555

Hepatitis B Virus (HBV) DNA Detection and Quantification by Real-Time PCR, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 87517

MOGFS
65563

Myelin Oligodendrocyte Glycoprotein (MOG-IgG1) Fluorescence-Activated Cell Sorting (FACS) Assay, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, specimen collection should occur prior to initiation of immunosuppressant medication. Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86363; 86363-titer (if appropriate);

CDS1
65565

CNS Demyelinating Disease Evaluation, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, specimen collection is recommended before initiation of immunosuppressant medication. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86053; 86363; 86053-Titer (if appropriate); 86363-Titer (if appropriate);

HIQNP
65567

HIV-1 RNA Detection and Quantification, Prenatal, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Plasma Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 87536

KCSF
65572

Immunoglobulin Kappa Free Light Chain, Spinal Fluid

Specimen Requirements: Specimen Type: Spinal fluid (CSF) Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: Label specimen as spinal fluid.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	28 days
	Refrigerated	72 hours
	Ambient	24 hours

CPT Code Information: 83521

SMNCS
65574

Spinal Muscular Atrophy Carrier Screening, Deletion/Duplication Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For more information about testing patients who have received a hematopoietic stem cell, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot

collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Muscle tissue biopsy Supplies: Muscle Biopsy Kit (T541) Specimen Volume: 20 to 80mg Collection Instructions: Prepare and transport specimen per instructions in Muscle Biopsy Specimen Preparation Instructions. Specimen Stability Information: Frozen (preferred) Ambient/Refrigerated <24hours Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81329; 88233 (if appropriate); 88240 (if appropriate);

SMNDX
65575

Spinal Muscular Atrophy Diagnostic Assay, Deletion/Duplication Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal

Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Direct testing of an uncultured specimen may be attempted for this test. Contact the laboratory at 800-533-1710 if direct testing is desired. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81329; 88235 (if appropriate); 88240 (if appropriate); 88233 (if appropriate); 88240 (if appropriate); 81265 (if appropriate);

PKUBS
65593

Phenylalanine and Tyrosine, Blood Spot

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 Paper, PerkinElmer 226 filter paper, Munktell filter paper, or blood collected in tubes containing EDTA and dried on filter paper. Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on filter paper at room temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred) 90 days/Refrigerated 90 days/Frozen 90 days Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Acceptable: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Refrigerate 6 days

Specimen Minimum Volume: Blood spots: 1; Whole blood: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Varies	

CPT Code Information: 84030; 84510; 82542 (if appropriate for government payers);

SEWB
65600

Selenium, Blood

Specimen Requirements: ***This specimen container cannot be opened or used for any other testing before shipping.*** Patient Preparation: High concentrations of gadolinium and iodine are known to interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for at least 96 hours. Supplies: -Metal Free EDTA 3 mL Tube (T989) -Metal Free B-D Tube (EDTA), 6 mL (T183) Container/Tube: Preferred: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (BD catalog no. 367777) (T989) Acceptable: Royal blue-top BD Vacutainer Plus with EDTA blood collection tube (6 mL) (BD catalog no. 368381) (T183) Specimen Volume: 0.8 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 84255

CRWB
65601

Chromium, Blood

Specimen Requirements: ***This specimen container cannot be opened or used for any other testing before shipping.*** Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Metal Free EDTA 3 mL Tube (T989) Container/Tube: 3 mL Royal blue-top BD vacutainer with EDTA blood collection tube (T989) (BD catalog no. 367777) Specimen Volume: 1.0 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82495

METR1
65609

Cytochrome b5 Reductase Enzyme Activity, Blood

Specimen Requirements: Collection Container/Tube: Preferred: Yellow top (ACD) Acceptable: Lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	18 days

CPT Code Information: 82657

HPLC
65615

High-Performance Liquid Chromatography (HPLC) Hemoglobin

Variant, Blood (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -HAEV1 / Hemolytic Anemia Evaluation, Blood -HBEL1 / Hemoglobin Electrophoresis Evaluation, Blood -MEV1 / Methemoglobinemia Evaluation, Blood -REVE2 / Erythrocytosis Evaluation, Blood -THEV1 / Thalassemia and Hemoglobinopathy Evaluation, Blood and Serum

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	10 days

CPT Code Information: 83021

CTXBS
65630

Cerebrotendinous Xanthomatosis, Blood Spot

Specimen Requirements: Supplies: -Card-Blood Spot Collection (Filter Paper) (T493) -Card-Postmortem Screening (Filter Paper) (T525) Container/Tube: Preferred: Blood Spot Collection Card (Filter Paper) Acceptable: Whatman Protein Saver 903 filter paper, PerkinElmer 226 filter paper, Munktell filter paper, Postmortem Screening Card or collected with EDTA, sodium heparin, lithium heparin, or ACD B-containing devices Specimen Volume: 2 Blood spots Collection Instructions: 1. Let blood dry completely on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 2. At least 1 spot should be complete (ie, unpunched). 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	10 days	FILTER PAPER
	Frozen	59 days	FILTER PAPER
	Ambient	10 days	FILTER PAPER

CPT Code Information: 82542

CTXP
65631

Cerebrotendinous Xanthomatosis, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	65 days

CPT Code Information: 82542

GPSYP
65632

Glucopsychosine, Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	65 days

CPT Code Information: 82542

CEE49
65658

CD49d Cell Expression Evaluation, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 10 mL Collection Instructions: 1. Label specimen as blood. 2. Send specimen in original tube. Do not aliquot Specimen Stability Information: Ambient 4 days/Refrigerated 4 days Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 1 to 5 mL Collection Instructions: 1. Submission of bilateral specimens is not required. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days

Specimen Minimum Volume: Blood: 3 mL; Bone marrow aspirate: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	4 days

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker; 88185 x 3-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker; 88187-Flow Cytometry Interpretation, 2 to 8 Markers;

CEE52
65659

CD52 Cell Expression Evaluation, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 10 mL Collection Instructions: 1. Label specimen as blood. 2. Send specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 1 to 5 mL Collection Instructions: 1. Submission of bilateral specimens is not required. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days

Specimen Minimum Volume: Blood: 3 mL; Bone marrow aspirate: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	4 days

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker; 88185 x 3-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker; 88187-Flow Cytometry Interpretation, 2 to 8 Markers;

CEE20
65660

CD20 Cell Expression Evaluation, Varies

Specimen Requirements:

Specimen Minimum Volume: Blood: 3 mL; Bone marrow aspirate: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	4 days

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker; 88185 x 3-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker; 88187-Flow Cytometry Interpretation, 2 to 8 Markers;

NGAMT
65661

MayoComplete Acute Myeloid Leukemia, Therapeutic Gene Mutation Panel (FLT3, IDH1, IDH2, TP53), Next-Generation Sequencing, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Acceptable: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Extracted DNA from blood or bone marrow Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted within 14 days after collection. 2. Label specimen as extracted DNA and source of specimen. 3. Provide volume and concentration of the DNA. Specimen Stability Information: Frozen (preferred)/Refrigerate/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Blood, Bone marrow: 1 mL Extracted DNA: 100 mcL at 20 ng/mcL concentration

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	14 days

CPT Code Information: 81120; 81121; 81245; 81246; 81352; 81479 (if appropriate for government payers);

ECULI
65676

Eculizumab, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	28 days
	Ambient	28 days
	Refrigerated	28 days

CPT Code Information: 80299

HSMP
65694

Hepatosplenomegaly Panel, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	65 days

CPT Code Information: 82542

HSMWB
65695

Hepatosplenomegaly Panel, Blood

Specimen Requirements: Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium heparin, lithium heparin), yellow top (ACD B) Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	72 hours
	Ambient	48 hours

CPT Code Information: 82542

NGSFX 65718 Reanalysis of Acute Myeloid Leukemia 4- or 11- Gene Panels, Additional Genes (Non-Orderable)

Specimen Requirements: No additional specimen is required. This is a bioinformatics review of additional gene regions not analyzed in the previously ordered NGAMT / MayoComplete Acute Myeloid Leukemia, Therapeutic Gene Mutation Panel (FLT3, IDH1, IDH2, TP53), Next-Generation Sequencing, Varies or NGAML / MayoComplete Acute Myeloid Leukemia, 11-Gene Panel, Varies. Call 800-533-1710 for assistance with ordering.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	14 days

CPT Code Information: 81450

CRUO 65719 Chromium Occupational Exposure, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Clean, plastic urine collection container with no metal cap or glued insert Submission Container/Tube: Plastic, 5-mL tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82495 ; 82570;

PSHIV
65819

HIV-1 RNA Patient Source, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Plasma Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 87536

PTFIB
65820

PT-Fibrinogen, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ALUPP / Lupus Anticoagulant Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma AATHR / Thrombophilia Profile, Plasma and Whole Blood APROL / Prolonged Clot Time Profile, Plasma ADIC / Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85385

TRPS
65832

Troponin T, 5th Generation, Plasma

Specimen Requirements: Collection Container/Tube: Preferred: Light-green top (lithium heparin gel) Acceptable: Green top (lithium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Plasma Collection Instructions: 1. Within 2 hours of collection, lithium heparin gel tubes should be centrifuged. 2. Within 2 hours of collection, lithium heparin tubes should be centrifuged, and the plasma aliquoted into a plastic vial .

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Li Heparin	Frozen (preferred)	365 days
	Ambient	24 hours
	Refrigerated	24 hours

CPT Code Information: 84484

RIVAR
65847

Rivaroxaban, Anti-Xa, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	42 days

CPT Code Information: 80299

APIXA
65848

Apixaban, Anti-Xa, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	42 days

CPT Code Information: 80299

BLYM
65878

B-Cell Lymphoma, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88377 (if 1 probe set); 88377 x 2 (if 2 probe sets); 88377 x 3 (if 3 probe sets); 88377 x 4 (if 4 probe sets); 88377 x 5 (if 5 probe sets); 88377 x 6 (if 6 probe sets);

H2BR
65879

HER2 Amplification Associated with Breast Cancer, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88377

H2GE
65880

HER2 Amplification Associated with Gastroesophageal Cancer,

FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88377

H2MT
65881

HER2 Amplification, Miscellaneous Tumor, FISH, Tissue

Specimen Requirements:

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88377

SLL
65884

Small Lymphocytic Lymphoma, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin stained and 2 unstained for each probe set Collection Instructions: 1. Include 1 hematoxylin and eosin-stained slide for the entire test order. 2. If individual probe sets are chosen: For each probe set ordered, 2 consecutive, unstained, 5 micron-thick sections placed on positively charged slides. 3. If a complete small lymphocytic

lymphoma (SLL) panel is ordered, submit 14 consecutive, unstained, 5 micron-thick sections placed on positively charged slides. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88377-if 1 probe set; 88377 x 2-if 2 probe sets; 88377 x 3-if 3 probe sets; 88377 x 4-if 4 probe sets; 88377 x 5-if 5 probe sets; 88377 x 6-if 6 probe sets; 88377 x 7-if 7 probe sets; 88377 x 8-if 8 probe sets;

TLYM
65911

T-Cell Lymphoma, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 2 unstained for each probe set Collection Instructions: 1. Include 1 hematoxylin and eosin-stained slide for the entire test order. 2. For each probe set ordered, 2 consecutive, unstained, 5 micron-thick sections placed on positively charged slides. 3. If ordering TCL1A or TRA, 4 unstained slides are necessary; the break-apart TCL1A and TRA break-apart probe sets are performed simultaneously. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88377 (if 1 probe set); 88377 x 2 (if 2 probe sets); 88377 x 3 (if 3 probe sets); 88377 x 4 (if 4 probe sets); 88377 x 5 (if 5 probe sets); 88377 x 6 (if 6 probe sets); 88377 x 7 (if 7 probe sets); 88377 x 8 (if 8 probe sets);

SMN1Z
65941

SMN1 Gene, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800 Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing

can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 Flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81336; 88233-Tissue culture, skin, or solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

BUPM
66200

Buprenorphine and Norbuprenorphine, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test. 3. Submitting less than 1 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: G0480; 80348 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

F8INV 66205 Hemophilia A F8 Gene, Intron 1 and 22 Inversion Mutation Analysis, Blood

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogeneic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) or blue top (3.2% sodium citrate) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable if approved by the laboratory. See Additional Information. Additional Information: 1. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 2. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are performed to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal blood specimen under a separate order number.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	7 days
	Frozen	7 days
	Refrigerated	7 days

CPT Code Information: 81403

F8INP 66206 Hemophilia A F8 Gene, Intron 1 and 22 Inversion Mutation Analysis, Prenatal

Specimen Requirements: Results will be reported and telephoned or faxed if requested. Submit only 1 of the following specimens: Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 5-10 mL Collection Instructions: 1. Optimal timing for specimen collection is during 14 to 18 weeks of gestation, but specimens collected at other weeks of gestation are also accepted. 2. Discard the first 2 mL of amniotic fluid. If the culture will be performed in conjunction with chromosome analysis and alpha-fetoprotein, a total of approximately 25 mL to 30 mL will be needed for the combined studies. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated Additional Information: 1. Place the tubes in a Styrofoam container. 2. Fill remaining space with packing material. 3. Unavoidably, about 1% to 2% of mailed-in specimens are not viable. 4. Bloody specimens are undesirable. 5. If the specimen does not grow in culture, you will be notified within 7 days of receipt. 6. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. 7. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal

Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Supplies: CVS Media (RPMI) and Small Dish (T095) Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20-30 mg Collection Instructions: 1. Collect specimen by the transabdominal or transcervical method. 2. Transfer the chorionic villi specimen to a Petri dish containing transport medium. 3. Using a stereomicroscope and sterile forceps, assess the quality and quantity of the villi and remove any blood clots and maternal decidua. Specimen Stability Information: Refrigerated (preferred) <24 hours/Ambient Additional Information: 1. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 2. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 Flasks approximately 90% confluent Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated Additional Information: All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Amniotic fluid: See Specimen Required Chorionic villi: 5 mg

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Varies		

CPT Code Information: 81403

PMPDD
66569

PMP22 Gene, Large Deletion/Duplication Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test

(including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81324

CSFME
67846

Meningitis/Encephalitis Pathogen Panel, PCR, Spinal Fluid

Specimen Requirements: Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: Frozen specimens are not acceptable.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated	7 days

CPT Code Information: 87483

ALBSF
68001

Albumin, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: 1. Submit CSF from collection vial number 2 (preferred, not required). 2. Label specimen as CSF.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82042

KRASD
68003

Cell-Free DNA KRAS 12, 13, 61,146, Blood

Specimen Requirements: Supplies: Streck Black/Tan Top Tube Kit (T715) Container/Tube: Streck Cell-Free DNA blood collection kit Specimen Volume: Two 10-mL Streck Cell-Free DNA blood collection tubes Additional Information: Only blood collected in Streck Cell-Free DNA BCT tubes will be accepted for analysis. Whole blood will be processed to produce platelet-poor plasma before cfDNA isolation.

Specimen Minimum Volume: One 10 mL Streck tube

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	7 days	Streck Black/Tan top
	Refrigerated	7 days	Streck Black/Tan top

CPT Code Information: 81275; 81276; ;

BHISC
70312

Bone Histomorphometry, Gross Microscopic Exam

Specimen Requirements: Supplies: Metal Free Specimen Vial (T173) Specimen Type: Bone Preferred: Anterior iliac crest Container/Tube: Metal-free specimen vial Specimen Volume: Entire specimen Collection Instructions: 1. Fix specimen in 70% ethanol. 2. Quantitation of bone turnover requires 2 time-spaced tetracycline labels. 3. The use of metal-free containers is required to avoid aluminum or iron contamination. 4. For complete instructions see Bone Histomorphometry Specimen Preparation (T579). Additional Information: Consultation with a Mayo Clinic Laboratories pathologist or endocrinologist/nephrologist is recommended for first-time users of this service. Written instructions are available upon request.

Specimen Minimum Volume: 5 mm bone

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88346; 88307; 88313;

BHISI
70314

Bone Histomorphometry, Consultant Interpretation, Slides Only

Specimen Requirements: Specimen Type: Bone Source: Anterior iliac crest Slides: 2 Submission Container/Tube: Plastic slide holder Specimen Volume: A minimum of 1 Goldner Trichrome-stained slide and 1 hematoxylin and eosin-stained slide are required. One tetracycline slide should be submitted as applicable. Collection Information: For complete instructions see Bone Histomorphometry Specimen Preparation (T579). Additional Information: Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 88321

EM
70316

Electron Microscopy, Varies

Specimen Requirements: Specimen Type: Fixed wet tissue Supplies: Electron Microscopy Kit (T660) Container/Tube: Electron Microscopy Kit or leak-proof container Specimen Volume: Entire specimen Collection Instructions: Collect specimen according to the instructions in Electron Microscopy Procedures of Handling Specimens for Electron Microscopy. Do not place on ice, dry ice, or freeze. Additional Information: 1. PATHC / Pathology Consultation may be added if deemed necessary by the reviewing pathologist. 2. Liver/gastrointestinal and hair shaft specimens are not acceptable. Testing will be canceled if one of these specimen types is received. For neuronal ceroid lipofuscinosis (NCL) testing only Specimen Type: Whole blood Container/Tube: Green top (sodium heparin) or yellow top (ACD solution B) Specimen Volume: 5 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: If test indication is for NCL, whole blood may be submitted in lieu of fixed wet tissue. This is only applicable for a presumptive diagnosis of NCL; whole blood specimens submitted for any other reason will be rejected.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
EM	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88348

PATHC
70317

Pathology Consultation

Specimen Requirements: Additional Information: All specimens and additional paperwork must be labeled with: -Two patient identifiers (first and last name, date of birth, or medical record number) -Specimen type and anatomic site Supplies: Pathology Packaging Kit (T554) Specimen Type: Tissue Container/Tube: Formalin-fixed paraffin-embedded blocks, stained slides, and/or unstained slides Note: Submit only pertinent hematoxylin and eosin (H and E) and all special stains relevant to the diagnostic questions for the case. Include positively charged unstained slides and/or a formalin-fixed, paraffin-embedded tissue block if it is anticipated that additional stains or ancillary testing may be necessary. Bone Marrow Case Specimen Requirements For information on collecting specimens, see Bone Marrow Core Biopsy, Clot, and Aspirate Collection Guideline. Specimen Type: Bone marrow aspirate Slides: 5 Preferred: Freshly prepared slides made at the time of specimen collection Acceptable: Slides made from EDTA specimen, within 2 hours of collection Submission Container/Tube: Plastic slide holder Specimen Type: Bone marrow aspirate clot Container/Tube: Bone marrow aspirate clot embedded in paraffin block Collection Instructions: Process and embed clot in paraffin Specimen Type: Bone marrow core biopsy Container/Tube: Fixed biopsy core embedded in paraffin block Collection Instructions: Process and embed core in paraffin. Specimen Type: Blood Slides: 2 Preferred: 2 Freshly prepared fingerstick slides Acceptable: 2 Slides made from whole blood in EDTA, made within 8 hours of collection Submission Container/Tube: Plastic slide holder

Transport Temperature:

Specimen Type	Temperature	Time
MMLDRY	Ambient	

CPT Code Information: 88321 (if appropriate); 88323 (if appropriate); 88325 (if appropriate);

ANPAT
70318

Anatomic Pathology Consultation, Wet Tissue

Specimen Requirements: Submit 1 of the following specimens: Specimen Type: Lung biopsy Supplies: -Pathology Packaging Kit (T554) -Formalin, 10% Buffered Neutral for Tissue (T118) -Michel's Transport Media for Immunofluorescent Testing on Tissue (T321) Specimen Volume: Biopsy specimens as delineated below Collection Instructions: For testing to be performed, both of the following must be submitted: a. For light microscopy: Preferred: A portion of lung tissue in 10% neutral buffered formalin. Specimens submitted in formalin needs to be fully submerged with the optimal approximate specimen volume of 10:1 or higher. Acceptable: A representative hematoxylin and eosin (H and E)-stained slide b. For immunofluorescence, a portion of the unfixed lung tissue in Michel's transport media Specimen Type: Cardiac biopsy Supplies: -Pathology Packaging Kit (T554) -Formalin, 10% Buffered Neutral for Tissue

(T118) -Gluta (Trumps) (T130) Specimen Volume: Biopsy specimens as delineated below Collection Instructions: 1. Collect 4 to 6 biopsy specimens and submit all in 10% neutral buffered formalin. Specimens submitted in formalin needs to be fully submerged with the optimal approximate specimen volume of 10:1 or higher. If formalin biopsy specimens are not available, light microscopy slides would also be acceptable. 2. If electron microscopy (EM) is also requested, submit at least 1 biopsy into 2.5% to 3% buffered glutaraldehyde preservative (Trumps) along with the formalin biopsy specimens. Additional Information: If the question is drug toxicity, storage disease, or if the patient is younger than 25 years, send at least 1 biopsy specimen in 2.5% to 3% buffered glutaraldehyde (Trumps) in case EM is needed for diagnosis. Specimen Type: Cardiac explant Supplies: Pathology Packaging Kit (T554) Specimen Volume: Entire explant specimen Collection Instructions: 1. Fix entire explant specimen in formalin for a minimum of 24 hours. 2. Following fixation, lightly wrap specimen in formalin-soaked paper towel, place in a biohazard bag with a small amount of formalin, seal, place in another biohazard bag, and seal. Specimen Type: Enucleated eye Supplies: -Pathology Packaging Kit (T554) -Formalin - 10% Histo Prep, 45 mL (T117) Specimen Volume: Entire eye specimen Collection Instructions: 1. Immediately after removal, place specimen in approximately 300 mL of 10% neutral buffered formalin and fix for 48 hours. 2. Enucleated eye should not be opened or punctured. 3. After the 48-hour fixation, the specimen should be transferred from the larger, 300 mL container to a smaller container with fixative (Formalin - 10% Histo Prep, 45 mL) for shipping. Specimen Type: Iris, conjunctiva, cornea, and other small biopsies from eye Supplies: -Pathology Packaging Kit (T554) -Formalin - 10% Histo Prep, 45 mL (T117) Specimen Volume: Entire biopsy specimen Collection Instructions: 1. Place iris, conjunctiva, cornea, and other small biopsies on a paper mount (a piece of filter paper or other porous paper). This helps to keep the specimen from curling when it is fixed. 2. Immediately, gently place paper-mounted specimen into 10% formalin (Formalin - 10% Histo Prep, 45 mL). 3. In cases where margins are important, placing sutures at the margins of resection with accompanying explanatory draft will help orientation of the specimen in the lab. Specimen Type: Vitreous fluid/Aqueous humor Supplies: -Pathology Packaging Kit (T554) -Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic screw-top vial Specimen Volume: Entire specimen Collection Instructions: 1. Place the liquid (vitreous or aqueous) concentrate (preferred) or washing (diluted, acceptable) into a small tube with a screw-top cap. 2. Refrigerate the specimen immediately (do not freeze). Specimen Stability Information: Refrigerated

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 88300 (if appropriate); 88302 (if appropriate); 88304 (if appropriate); 88305 (if appropriate); 88307 (if appropriate); 88309 (if appropriate);

CPAPD
70329

Conventional Smear-Diagnostic, Varies

Specimen Requirements: Patient Preparation: For optimal interpretation, Papanicolaou smears should be collected near the middle of the menstrual cycle. No douching, lubricant use, or sexual intercourse for 24 hours prior to specimen collection. Container/Tube: Slide Specimen Volume: Circular scrape of cervical os Collection Instructions: 1. Specimen containers must be labeled with a minimum of

2 unique identifiers (patient's name, and medical record number or date of birth). Containers should also be labeled with specimen source, and date collected. 2. Glass slides may be labeled with a single unique identifier, but 2 identifiers are preferred. If multiple slides are submitted, each slide must have proper identification. Glass slides should be identified with the patient's name and a second patient identifier that is also on the accompanying paperwork (ie, medical record number or date of birth) 3. Fix slides immediately in 95% alcohol or treat with commercially available spray fixative.

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	SLIDE	
	Refrigerated	SLIDE	

CPT Code Information: P3000; 88164; 88141-CVSPC (if appropriate);

CYTNG
70330

Cytology Non-Gynecologic, Varies

Specimen Requirements: Submit only 1 of the following specimens: Contact the testing lab for specific instructions. Specimen Type: Non-gynecologic cytology specimen Supplies: CytoLyt Solution (T564) Container/Tube: Preferred: CytoLyt solution Acceptable: 1. PreservCyt solution in prefilled vial 2. Specimens with equal volume of 50%, 70%, 80%, or 95% ethanol 3. Specimens fixed in carbowax, CytoSpin collection fluid, or CytoRich red Specimen Volume: A minimum of 20 mL or entire collection Collection Instructions: 1. Specimen containers must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number). 2. Indicate the specimen source and source location on the label. Specimen Type: Spinal fluid Collection Container/Tube: Sterile vial Submission Container/Tube: Container with equal volume of 50%, 70%, 80%, or 95% ethanol Specimen Volume: A minimum of 1 mL Collection Instructions: Specimen containers must be labeled with a minimum of 2 unique identifiers (patient's name and clinic number). Specimen Type: Smear Container/Tube: Plastic slide container Specimen Volume: Glass slide Collection Instructions: 1. Slides should be immediately fixed in 95% ethanol or sprayed with commercially available fixative. Smears that have been air-dried or Diff-Quik stained may also be accepted. 2. Label containers with a minimum of 2 unique identifiers (eg, patient name and medical record number or date of birth), specimen source, and date of collection. Label each glass slide in pencil with a minimum of 2 unique identifiers. If multiple slides are submitted, each slide must have proper identification.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88104-NDSPC (if appropriate); 88108-NCSPC (if appropriate);

88112-NTPPC (if appropriate); 88161-CSOPC (if appropriate); 88162-CSAPC (if appropriate); 88305-CBKPC (if appropriate);

CPAPS
70331

Conventional Smear-Screen, Varies

Specimen Requirements: Patient Preparation: For optimal interpretation, Papanicolaou smears should be collected near the middle of the menstrual cycle. No douching, lubricant use, or sexual intercourse for 24 hours prior to specimen collection. Container/Tube: Slide Specimen Volume: Circular scrape of cervical os Collection Instructions: 1. Specimen containers must be labeled with a minimum of 2 unique identifiers (patient's name, and medical record number or date of birth). Containers should also be labeled with specimen source, and date collected. 2. Glass slides may be labeled with a single unique identifier, but 2 identifiers are preferred. If multiple slides are submitted, each slide must have proper identification. Glass slides should be identified with the patient's name and a second patient identifier that is also on the accompanying paperwork (ie, medical record number or date of birth) 3. Fix slides immediately in 95% alcohol or treat with commercially available spray fixative.

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	SLIDE	
	Refrigerated	SLIDE	

CPT Code Information: P3000; 88164; 88141-CVSPC (if appropriate);

TPRPS
70332

ThinPrep Screen, Varies

Specimen Requirements: Patient Preparation: For optimal interpretation, Pap smears should be collected near the middle of the menstrual cycle. Avoid douching, lubricant use, and sexual intercourse for 24 hours prior to specimen collection. Only 1 aliquot may be removed from PreservCyt sample vial prior to performing the ThinPrep Pap test, regardless of the volume of the aliquot (maximum aliquot volume: 4 mL). Submit only 1 of the following specimens: Specimen Type: Cervical Supplies: Thin Prep Media with Broom Kit (T056) Container/Tube: ThinPrep Specimen Volume: 16 mL Collection Instructions: 1. Obtain adequate sampling from cervix using a broom-like collection device. If desired, use lukewarm to warm water and lubricate the speculum. Insert the central bristles of the broom into the endocervical canal deep enough to allow the shorter bristles to fully contact the ectocervix. Push gently and rotate the broom in a clockwise direction 5 times. 2. Rinse the broom as quickly as possible into the PreservCyt solution vial by pushing broom into bottom of vial 10 times, forcing the bristles apart. 3. As a final step, swirl broom vigorously to further release material. Discard the collection device. 4. Tighten cap on vial so that the torque line on the cap passes the torque line on the vial. 5. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 6. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 7. Place labels on the vial and on the bag. Specimen Type: Ectocervix and endocervix Supplies: Thin Prep Media with Spatula and Brush Kit (T434) Container/Tube: ThinPrep Specimen Volume: 16 mL Collection Instructions: 1. Obtain an adequate sampling from the ectocervix using a plastic spatula. If desired, use lukewarm to warm water and lubricate the speculum. Select contoured end of plastic spatula and rotate it 360 degrees around the entire exocervix while maintaining tight contact with exocervical surface. 2. Rinse spatulas quickly as possible into the PreservCyt solution vial by swirling spatula vigorously in vial 10

times. Discard the spatula. 3. Next, obtain an adequate specimen from endocervix using an endocervical brush device. Insert the brush into the cervix until only the bottommost fibers are exposed. Slowly rotate one-quarter or one-half turn in one direction. Do not over rotate. 4. Rinse the brush as quickly as possible in the PreservCyt solution by rotating the device in the solution 10 times while pushing against the PreservCyt vial wall. 5. Swirl brush vigorously as final step to further release material. Discard the brush. 6. Tighten the cap so that the torque line on the cap passes the torque line on the vial. 7. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 8. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 9. Place labels on the vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	42 days	THIN PREP
	Refrigerated	42 days	THIN PREP

CPT Code Information: G0123 (Government Payers); 88142 ; 88141-TPSPC (if appropriate); ;

TPRPD
70333

ThinPrep Diagnostic, Varies

Specimen Requirements: Patient Preparation: For optimal interpretation, Pap smears should be collected near the middle of the menstrual cycle. Avoid douching, lubricant use, or sexual intercourse for 24 hours prior to specimen collection. Only 1 aliquot may be removed from PreservCyt sample vial prior to performing the ThinPrep Pap test, regardless of the volume of the aliquot (maximum aliquot volume: 4 mL). Submit only 1 of the following specimens: Specimen Type: Cervical Supplies: Thin Prep Media with Broom Kit (T056) Container/Tube: ThinPrep Specimen Volume: 16 mL Collection Instructions: 1. Obtain adequate sampling from cervix using a broom-like collection device. If desired, use lukewarm water to warm and lubricate the speculum. Insert the central bristles of the broom into the endocervical canal deep enough to allow the shorter bristles to fully contact the ectocervix. Push gently and rotate the broom in a clockwise direction 5 times. 2. Rinse the broom as quickly as possible into the PreservCyt solution vial by pushing broom into bottom of vial 10 times, forcing the bristles apart. 3. As a final step, swirl broom vigorously to further release material. Discard the collection device. 4. Tighten cap on vial so that the torque line on the cap passes the torque line on the vial. 5. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 6. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 7. Place labels on the vial and on the bag. Specimen Type: Ectocervix and endocervix Supplies: Thin Prep Media with Spatula and Brush Kit (T434) Container/Tube: ThinPrep Specimen Volume: 16 mL Collection Instructions: 1. Obtain an adequate sampling from the ectocervix using a plastic spatula. If desired, use lukewarm water to warm and lubricate the speculum. Select contoured end of plastic spatula and rotate it 360 degrees around the entire exocervix while maintaining tight contact with exocervical surface. 2. Rinse spatulas quickly as possible into the PreservCyt solution vial by swirling spatula vigorously in vial 10 times. Discard the spatula. 3. Next, obtain an adequate specimen from endocervix using an endocervical brush device. Insert the brush into the cervix until only the bottommost fibers are exposed. Slowly rotate one-quarter or one-half turn in on direction. Do not over-rotate. 4. Rinse the brush as quickly as possible in the PreservCyt solution by rotating the device in the solution 10 times while pushing against the PreservCyt vial wall. 5. Swirl brush vigorously as final step to further release material. Discard the brush. 6. Tighten

the cap so that the torque line on the cap passes the torque line on the vial. 7. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 8. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 9. Place labels on the vial and on the bag.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	42 days	THIN PREP
	Refrigerated	42 days	THIN PREP

CPT Code Information: 88142; 88141 (if appropriate);

CTFNA
70334

Cytology Fine-Needle Aspiration, Varies

Specimen Requirements: Specimen Type: Slide Container/Tube: Plastic slide container Specimen Volume: Smear Collection Instructions: 1. Smears should be immediately fixed in 95% ethanol or sprayed with commercially available fixative. Smears that have been air-dried or Diff-Quik stained may also be accepted. 2. Label containers with a minimum of 2 unique identifiers (eg, patient name and medical record number or date of birth), specimen source, and date of collection. Label each glass slide in pencil with a minimum of 2 unique identifiers. If multiple slides are submitted, each slide must have proper identification. Specimen Type: Fluid Container/Tube: 60-mL (2 oz) jar with screw cap, 50-mL disposable centrifuge tube with screw cap, or 15-mL test tube with screw cap Specimen Volume: Any amount Collection Instructions: 1. Preferred method is no fixative added to fluid prior to processing and the specimen must be received and processed by the Cytology Laboratory within 1 hour of collection. 2. If not possible to submit within 1 hour, specimen should be refrigerated no longer than 62 hours. Additional acceptable fixatives are specimens with equal volume of 50%, 70%, 80%, or 95% ethanol, PreservCyt solution, CytoRich Red, or CytoLyt. 3. Label containers with a minimum of 2 unique identifiers (eg, patient name and medical record number or date of birth), specimen source, and date of collection. Specimen Type: Tissue Container/Tube: 50-mL disposable centrifuge tube with screw cap or 60-mL (2 oz) jar with screw cap containing 10% neutral-buffered formalin Specimen Volume: Any amount Collection Instructions: 1. Tissue fragments must be submitted in 10% neutral-buffered formalin. 2. Label containers with a minimum of 2 unique identifiers (eg, patient name and medical record number or date of birth), specimen source, and date of collection.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88173; 88305-CBKPC (if appropriate);

STHPV
70335

ThinPrep Screen with Human Papillomavirus (HPV) Reflex, Varies

Specimen Requirements: Patient Preparation: For optimal interpretation, Papanicolaou smears should be collected near the middle of the menstrual cycle. No douching, lubricant use, and sexual intercourse for 24 hours prior to specimen collection. Only 1 aliquot may be removed from PreservCyt sample vial prior to performing the ThinPrep Pap Test, regardless of the volume of the aliquot (maximum aliquot volume: 4 mL). Submit only 1 of the following specimens: Supplies: Thin Prep Media with Broom Kit (T056) Specimen Type: Cervical Container/Tube: ThinPrep Specimen Volume: 16 mL Collection Instructions: 1. Obtain adequate sampling from cervix using a broom-like collection device. If desired, use lukewarm water to warm and lubricate the speculum. Insert the central bristles of the broom into the endocervical canal deep enough to allow the shorter bristles to fully contact the ectocervix. Push gently and rotate the broom in a clockwise direction 5 times. 2. Rinse the broom as quickly as possible into the PreservCyt solution vial by pushing broom into bottom of vial 10 times, forcing the bristles apart. 3. As a final step, swirl broom vigorously to further release material. Discard the collection device. 4. Tighten cap on vial so that the torque line on the cap passes the torque line on the vial. 5. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 6. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 7. Place labels on the vial and on the bag. Supplies: Thin Prep Media with Spatula and Brush Kit (T434) Specimen Type: Ectocervix and endocervix Container/Tube: ThinPrep Specimen Volume: 16 mL Collection Instructions: 1. Obtain an adequate sampling from the ectocervix using a plastic spatula. If desired, use lukewarm water to warm and lubricate the speculum. Select contoured end of plastic spatula and rotate it 360 degrees around the entire exocervix while maintaining tight contact with exocervical surface. 2. Rinse spatulas quickly as possible into the PreservCyt solution vial by swirling spatula vigorously in vial 10 times. Discard the spatula. 3. Next, obtain an adequate specimen from endocervix using an endocervical brush device. Insert the brush into the cervix until only the bottommost fibers are exposed. Slowly rotate one quarter or one half turn in 1 direction. Do not over rotate. 4. Rinse the brush as quickly as possible in the PreservCyt solution by rotating the device in the solution 10 times while pushing against the PreservCyt vial wall. 5. Swirl brush vigorously as final step to further release material. Discard the brush. 6. Tighten the cap so that the torque line on the cap passes the torque line on the vial. 7. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 8. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 9. Place labels on the vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	42 days	THIN PREP
	Refrigerated	42 days	THIN PREP

CPT Code Information: G0123; 88142; 88141 (if appropriate);

DTHPV
70336

ThinPrep Diagnostic with Human Papillomavirus (HPV) Reflex, Varies

Specimen Requirements: Patient Preparation: For optimal interpretation, Papanicolaou smears should be collected near the middle of the menstrual cycle. No douching, lubricant use, and sexual intercourse for 24 hours prior to specimen collection. Only 1 aliquot may be removed from PreservCyt sample vial prior to performing the ThinPrep Pap Test, regardless of the volume of the aliquot (maximum aliquot volume=4 mL). Submit only 1 of the following specimens: Specimen Type: Cervical Supplies: Thin Prep Media with Broom Kit (T056) Container/Tube: ThinPrep Specimen Volume: 16 mL Collection Instructions: 1. Obtain adequate sampling from cervix using a broom-like collection device. If desired, use lukewarm water to warm and lubricate the speculum. Insert the central bristles of the broom into the endocervical canal deep enough to allow the shorter bristles to fully contact the ectocervix. Push gently and rotate the broom in a clockwise direction 5 times. 2. Rinse the broom as quickly as possible into the PreservCyt solution vial by pushing broom into bottom of vial 10 times, forcing the bristles apart. 3. As a final step, swirl broom vigorously to further release material. Discard the collection device. 4. Tighten cap on vial so that the torque line on the cap passes the torque line on the vial. 5. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 6. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 7. Place labels on the vial and on the bag. Specimen Type: Ectocervix and endocervix Supplies: Thin Prep Media with Spatula and Brush Kit (T434) Container/Tube: ThinPrep Specimen Volume: 16 mL Collection Instructions: 1. Obtain an adequate sampling from the ectocervix using a plastic spatula. If desired, use lukewarm water to warm and lubricate the speculum. Select contoured end of plastic spatula and rotate it 360 degrees around the entire exocervix while maintaining tight contact with exocervical surface. 2. Rinse spatulas quickly as possible into the PreservCyt solution vial by swirling spatula vigorously in vial 10 times. Discard the spatula. 3. Next, obtain an adequate specimen from endocervix using an endocervical brush device. Insert the brush into the cervix until only the bottommost fibers are exposed. Slowly rotate one-quarter or one-half turn in 1 direction. Do not over rotate. 4. Rinse the brush as quickly as possible in the PreservCyt solution by rotating the device in the solution 10 times while pushing against the PreservCyt vial wall. 5. Swirl brush vigorously as final step to further release material. Discard the brush. 6. Tighten the cap so that the torque line on the cap passes the torque line on the vial. 7. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 8. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 9. Place labels on the vial and on the bag.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	42 days	THIN PREP
	Refrigerated	42 days	THIN PREP

CPT Code Information: 88142; 88141(if appropriate);

STPCO 70337 ThinPrep with Human Papillomavirus (HPV) Co-Test-Screen, Varies

Specimen Requirements: Patient Preparation: For optimal interpretation, Papanicolaou smears should be collected near the middle of the menstrual cycle. No douching, lubricant use, and sexual intercourse for 24 hours prior to specimen collection. Only 1 aliquot may be removed from PreservCyt sample vial prior to performing the ThinPrep Pap Test, regardless of the volume of the aliquot (maximum

aliquot volume: 4 mL). Submit only 1 of the following specimens: Specimen Type: Cervical Supplies: Thin Prep Media with Broom Kit (T056) Container/Tube: ThinPrep Specimen Volume: 16 mL Collection Instructions: 1. Obtain adequate sampling from cervix using a broom-like collection device. If desired, use lukewarm water to warm and lubricate the speculum. Insert the central bristles of the broom into the endocervical canal deep enough to allow the shorter bristles to fully contact the ectocervix. Push gently and rotate the broom in a clockwise direction 5 times. 2. Rinse the broom as quickly as possible into the PreservCyt solution vial by pushing broom into bottom of vial 10 times, forcing the bristles apart. 3. As a final step, swirl broom vigorously to further release material. Discard the collection device. 4. Tighten cap on vial so that the torque line on the cap passes the torque line on the vial. 5. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 6. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 7. Place labels on the vial and on the bag. Specimen Type: Ectocervix and endocervix Supplies: Thin Prep Media with Spatula and Brush Kit (T434) Container/Tube: ThinPrep Specimen Volume: 16 mL Collection Instructions: 1. Obtain an adequate sampling from the ectocervix using a plastic spatula. If desired, use lukewarm water to warm and lubricate the speculum. Select contoured end of plastic spatula and rotate it 360 degrees around the entire exocervix while maintaining tight contact with exocervical surface. 2. Rinse spatulas quickly as possible into the PreservCyt solution vial by swirling spatula vigorously in vial 10 times. Discard the spatula. 3. Next, obtain an adequate specimen from endocervix using an endocervical brush device. Insert the brush into the cervix until only the bottommost fibers are exposed. Slowly rotate one-quarter or one-half turn in 1 direction. Do not over rotate. 4. Rinse the brush as quickly as possible in the PreservCyt solution by rotating the device in the solution 10 times while pushing against the PreservCyt vial wall. 5. Swirl brush vigorously as final step to further release material. Discard the brush. 6. Tighten the cap so that the torque line on the cap passes the torque line on the vial. 7. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 8. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 9. Place labels on the vial and on the bag.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	42 days	THIN PREP
	Refrigerated	42 days	THIN PREP

CPT Code Information: 88142; G0123 (for government payers); 87626 (if appropriate); 87626 (if appropriate); 88141 (if appropriate);

DTPCO
70338

ThinPrep with Human Papillomavirus (HPV) Co-Test-Diagnostic, Varies

Specimen Requirements: Patient Preparation: For optimal interpretation, Papanicolaou smears should be collected near the middle of the menstrual cycle. No douching, lubricant use, and sexual intercourse for 24 hours prior to specimen collection. Only 1 aliquot may be removed from PreservCyt sample vial prior to performing the ThinPrep Pap Test, regardless of the volume of the aliquot (maximum aliquot volume: 4 mL). Submit only 1 of the following specimens: Specimen Type: Cervical Supplies: ThinPrep Media with Broom Kit (T056) Collection Container/Tube: ThinPrep Specimen Volume: 16 mL Collection Instructions: 1. Obtain adequate sampling from cervix using a broom-like collection device. If

desired, use lukewarm water to warm and lubricate the speculum. Insert the central bristles of the broom into the endocervical canal deep enough to allow the shorter bristles to fully contact the ectocervix. Push gently and rotate the broom in a clockwise direction 5 times. 2. Rinse the broom as quickly as possible into the PreservCyt solution vial by pushing broom into bottom of vial 10 times, forcing the bristles apart. 3. As a final step, swirl broom vigorously to further release material. Discard the collection device. 4. Tighten cap on vial so that the torque line on the cap passes the torque line on the vial. 5. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 6. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 7. Place labels on the vial and on the bag. Specimen Type: Ectocervix and endocervix Supplies: ThinPrep Media with Spatula and Brush Kit (T434) Collection Container/Tube: ThinPrep Specimen Volume: 16 mL Collection Instructions: 1. Obtain an adequate sampling from the ectocervix using a plastic spatula. If desired, use lukewarm water to warm and lubricate the speculum. Select contoured end of plastic spatula and rotate it 360 degrees around the entire exocervix while maintaining tight contact with exocervical surface. 2. Rinse spatulas quickly as possible into the PreservCyt solution vial by swirling spatula vigorously in vial 10 times. Discard the spatula. 3. Next, obtain an adequate specimen from endocervix using an endocervical brush device. Insert the brush into the cervix until only the bottommost fibers are exposed. Slowly rotate one-quarter or one-half turn in 1 direction. Do not over rotate. 4. Rinse the brush as quickly as possible in the PreservCyt solution by rotating the device in the solution 10 times while pushing against the PreservCyt vial wall. 5. Swirl brush vigorously as final step to further release material. Discard the brush. 6. Tighten the cap so that the torque line on the cap passes the torque line on the vial. 7. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 8. Bag ThinPrep specimens individually as they have a tendency to leak during transport. 9. Place labels on the vial and on the bag.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	42 days	THIN PREP
	Refrigerated	42 days	THIN PREP

CPT Code Information: 88142; G0123 (for government payers); 87626 (if appropriate); 87626 (if appropriate); 88141 (if appropriate);

HPWET
70343

Hematopathology Consultation, MCL Embed

Specimen Requirements: All specimens are required to perform testing. Supplies: Bone Marrow Collection Kit (T793) Additional Information: All specimens and paperwork must be labeled with: -Two patient identifiers (patient name, date of birth, medical record number, case number, or pathology ID) -Specimen type Information on collecting, packaging, and shipping specimens is available: -Bone Marrow Core Biopsy, Clot, and Aspirate Collection Guideline -Assistance with Bone Marrow Collection Specimen Type: Bone marrow aspirate Slides: 5 Preferred: Freshly prepared slides made at the time of specimen collection Acceptable: Slides made from EDTA bone marrow specimen, within 2 hours of collection Submission Container/Tube: Plastic slide holder Specimen Volume: 5 Total slides: 2 direct smears and 3 unit prep slides; unfixed and unstained, per unilateral collection Collection Instructions: 1. Prepare slides of bone marrow aspirate. 2. If bone marrow units are sparse or absent or aspirate is a dry tap, make biopsy touch prep slides. 3. Air dry slides. Do not place on hot plate to dry. 4. Place Parafilm

around the slide carriers holding unstained slides to prevent exposure to formalin fumes during transport. Place slides in a separate bag apart from any formalin-fixed clot or core biopsy specimens. If using slide carriers, make sure they have not been used to carry fixed slides previously. Specimen Type: Bone marrow aspirate Container/Tube: Lavender top (EDTA) and yellow top (ACD solution A or B) Specimen Volume: 2 x 3 mL in EDTA and 2 x 6 mL in ACD solution A or B Collection Instructions: 1. Aspirate per standard bone marrow collection procedure. 2. Send bone marrow specimens in original tubes. Do not aliquot. Specimen Type: Bone marrow aspirate clot Container/Tube: Bone marrow aspirate clot in 10% formalin Specimen Volume: 0.5 mL Collection Instructions: 1. Place 0.5 mL bone marrow aspirate in clot tube. 2. After clot has formed, place clot in 10% formalin. 3. Place Parafilm around the container to prevent exposure. Specimen Type: Bone marrow core biopsy Container/Tube: Fixed biopsy core in 10% formalin Collection Instructions: 1. If bone marrow units are sparse or absent, or aspirate is a dry tap, make biopsy touch prep slides. 2. Place biopsy core in 10% formalin immediately after collection. 3. Fix in 10% formalin for 1 to 2 hours. 4. Place Parafilm around the 10% formalin container to prevent exposure. Specimen Type: Blood Slides: 2 Preferred: 2 Freshly prepared fingerstick slides Acceptable: 2 Slides made from whole blood in EDTA, within 8 hours of collection Submission Container/Tube: Plastic slide holder Specimen Volume: 2 Unstained and unfixed slides Collection Instructions: 1. Prepare 2 smears of even thickness. 2. Place Parafilm around the slide carriers holding unstained slides to prevent exposure to formalin fumes during transport. Place slides in a separate bag apart from any formalin-fixed clot or core biopsy specimens. If using slide carriers, make sure they have not been used to carry fixed slides previously.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 85007 (if appropriate); 85060 (if appropriate); 85097 (if appropriate); 88305 (if appropriate); 88311 (if appropriate);

CD45I
70348

CD45 Leukocyte Common Antigen (LCA) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

AAH
70349

Amyloid A (Hepatic) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

AATRP
70350

Alpha-1-Antitrypsin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Preferred: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Acceptable: None

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ACTHI
70351

Adrenocorticotropic Hormone (ACTH) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ADV
70352

Adenovirus Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ALFP
70353

Alpha-Fetoprotein (AFP) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ANNEX
70355

Annexin-1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

APPI
70357

Amyloid Precursor Protein (APP) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

AREC
70358

Androgen Receptor Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ARGIN
70359

Arginase-1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ATRX
70360

ATRX Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

BCATN
70361

Beta-Catenin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

BCL2
70362

BCL-2 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

BCL6
70363

BCL-6 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

BOB1
70365

BOB-1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

BRACH
70366

Brachyury Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CALCI
70368

Calcitonin (CALCI) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CALD
70369

Caldesmon Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CALPN
70370

Calponin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only

Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CALNN
70371

Calretinin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD103
70372

CD103 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD10
70373

CD10 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD13
70374

CD13 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD14I
70375

CD14 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD15
70376

CD15 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD19I
70377

CD19 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD1A
70378

CD1a Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD20I
70379

CD20 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only

Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD21
70380

CD21 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD22I
70381

CD22 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD23
70382

CD23 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD25
70383

CD25 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD2
70384

CD2 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD30
70385

CD30 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD31
70386

CD31 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD33
70387

CD33 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD34I
70388

CD34 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only

Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD35
70389

CD35 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD38
70390

CD38 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD3I
70391

CD3 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD43
70392

CD43 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD4I
70393

CD4 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD56
70394

CD56 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD57
70395

CD57 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD5
70396

CD5 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD61
70397

CD61 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only

Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD71
70398

CD71 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

CD7
70399

CD7 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD8I
70400

CD8 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CDX2
70401

CDX2 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CHRO
70402

Chromogranin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CLAUD
70403

Claudin-1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CLUS
70404

Clusterin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CMVI
70406

Cytomegalovirus (CMV) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CO4D
70407

Complement 4d Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

COLIV
70408

Collagen IV Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CRPRO
70409

C-Reactive Protein (CRP) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be

rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

NEGCT
70410

Negative Control, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CYC1
70411

Cyclin D1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD11C
70412

CD11c Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD123
70413

CD123 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD138
70414

CD138 (Syndecan) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD163
70415

CD163 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

D240
70416

Podoplanin (D2-D40) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only

Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD279
70417

CD279 (PD-1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD79
70418

CD79a Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double

mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

DESG3
70420

Desmoglein 3 (DSG3) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

DESMN
70421

Desmin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

DOG1
70422

DOG-1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ECAD
70423

E-Cadherin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

EMAI
70424

Epithelial Membrane Antigen (EMA) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ERG
70426

ERG Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ESTR
70427

Estrogen Receptor Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

FC13A
70428

Factor 13a Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

LFABP
70429

Liver Fatty Acid-Binding Protein (L-FABP) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be

rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

FACR8
70430

Factor 8 Related Antigen Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

FASC
70431

Fascin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

FLI1
70432

FLI-1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

FSHB
70433

Follicle Stimulating Hormone, Beta Subunit (Beta FSH) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

FUSI
70434

FUS Immunostain, Technical Component Only

Specimen Requirements: Supplies: Immunostain Technical Only Envelope (T693) Specimen Type: Tissue Container/Tube: Immunostain Technical Only Envelope Preferred: 2 Unstained positively charged glass slide (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Acceptable: Formalin-fixed, paraffin-embedded tissue block

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

FOXP1
70435

FOXP1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

FOXP3
70436

FOXP3 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

GAB1
70437

GRB2-Associated Binding Protein 1 (GAB1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

GALN3
70438

Galectin-3 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per

test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

GASTN
70439

Gastrin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

GATA3
70440

GATA Binding Protein 3 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

GCDF
70441

GCDFP-15 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

GCET
70442

Germinal Center B-cell Expressed Transcript 1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

GFAP
70443

Glial Fibrillary Acidic Protein Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

GRH
70444

Growth Hormone Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

GLUCG
70445

Glucagon Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

GLUT
70446

GLUT-1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

GLYP3 70447 Glypican-3 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

GLYCF 70448 Glycophorin A (CD235a) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

GRANB 70449 Granzyme B Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

GLUTS
70450

Glutamine Synthetase Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HEPBC
70451

Hepatitis B Core (HBc) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double

mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

HBME
70452

Mesothelial Cell (HBME-1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

HEPBS
70453

Hepatitis B Surface (HBs) Antigen Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HEMB
70454

Hemoglobin (Hb) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HCG
70455

Human Chorionic Gonadotropin (hCG) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HEPAT
70456

Hepatocyte Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HER2I
70457

HER2 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

HRPV8
70458

Human Herpes Virus, Type 8 (HHV-8) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HMB45
70459

HMB45 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HMGA
70460

High Mobility Group A2 (HMGA2) Immunostain, Technical

Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HNF1B
70461

Hepatocyte Nuclear Factor 1Beta Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HPL
70462

Human Placental Lactogen Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Preferred: -Formalin-fixed,

paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Acceptable: None

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HPVHL
70464

Human Papillomavirus (HPV) High/Low Risk, In Situ Hybridization

Specimen Requirements: Supplies: Pathology Packaging Kit (T554) Specimen Type: Formalin-fixed, paraffin-embedded tissue block Specimen Volume: Entire block Specimen Type: Slides Slides: 6 Unstained glass, positively charged slides with 5 (+ or - 1)-microns formalin-fixed, paraffin-embedded tissue Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88365-Primary; 88364-If additional ISH;

HPVLR
70465

Human Papillomavirus (HPV) Low Risk, In Situ Hybridization

Specimen Requirements: Supplies: Pathology Packaging Kit (T554) Specimen Type: Tissue Container/Tube: Immunostain Technical Only Envelope Collection Instructions: Formalin-fixed, paraffin-embedded tissue block; or 5 unstained glass, "positively charged" slides with 4-microns, formalin-fixed, paraffin-embedded tissue Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88365-Primary; 88364-If additional in situ hybridization;

HPYL
70466

Helicobacter pylori (H pylori) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HRPSV
70467

Herpes Simplex Virus, I and II (HSV I and II) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

IDH1
70468

IDH1 Mutation (R132H) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

IGAI
70470

IgA Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

IGDI
70471

IgD Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

IGG4I
70472

IgG4 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

IGGI
70473

IgG Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Preferred: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Acceptable: None

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

IGMI
70474

IgM Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

JCV
70475

JC Virus Detection by In Situ Hybridization

Specimen Requirements: Specimen Type: Tissue Supplies: Pathology Packaging Kit (T554) Submit: Formalin-fixed, paraffin-embedded tissue block (preferred) OR 4 Unstained glass, positively-charged slides with 5 (+ or -1)-micron formalin-fixed, paraffin-embedded tissue Additional Information: Broken or cracked unstained slides will be rejected.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88365-Primary; 88364-If additional ISH;

INHIB
70476

Inhibin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

INI1
70477

Integrase Interactor 1 (INI1/BAF47) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

INSUL
70478

Insulin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ISLET
70479

Islet 1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

KI67
70481

Ki-67 (MIB-1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-Primary; 88341-If additional IHC;

KAIHC
70482

Kappa Light Chain Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

KIMEL
70483

Ki67 + Melan A Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only

Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88344-TC

KIT
70485

KIT Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CDKP1
70486

CD68 (KP1) Immunostain, Tissue, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

KRT7
70488

Keratin 7 (KRT7) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TTFK5
70489

Thyroid Transcription Factor 1 (TTF1) (SPT24) and Keratin 5 (KRT5) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88344-TC

KRT19
70490

Keratin 19 (KRT19) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

KRT20
70491

Keratin 20 (KRT20) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

KRT34
70492

Keratin (34BE12) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

KRTAE
70493

Keratin (AE1/AE3) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

KRTOS
70495

Keratin (OSCAR) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only

Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

LANGR
70496

Langerin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

LECT2
70497

Leukocyte Cell-Derived Chemotaxin 2 (LECT2), Immunostains Without Interpretation

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double

mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

LUTHI
70498

Luteinizing Hormone (LH) Beta Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

LAIHC
70499

Lambda Light Chain Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

LMO2
70501

LIM Domain Only 2 (LMO2) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

LMP1I
70502

Epstein Barr Virus Latency Membrane Protein 1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

LYSOZ
70503

Lysozyme Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MELAN
70504

Melan A (MART-1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MOC31
70505

MOC-31 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

MCEA
70506

Carcinoembryonic Antigen, Monoclonal Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MGB
70507

Mammaglobin (MGB) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD99
70508

CD99 (MIC-2) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MITF
70509

MiTF Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MLH1
70510

MLH1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MYPO
70511

Myeloperoxidase (MPO) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MSH2
70512

MSH2 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

MSH6
70513

MSH6 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

MUM1
70514

MUM-1/IRF4 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MYC
70515

MYC Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MYOGE
70516

Myogenin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only

Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MYOGL
70517

Myoglobin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MYOD1
70518

Myogenic Differentiation Antigen 1 (MYOD1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be

rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

NAPSN
70519

Napsin A Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

NF2F
70520

Neurofilament (2F11) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

NUT
70521

NUT Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Preferred: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Acceptable: None

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

OCT2
70522

OCT-2 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

OCT4
70523

OCT3/4 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

P16
70524

p16 (INK4a/CDKN2A) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

P40NA
70526

p40 + Napsin A Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be

rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88344-TC

P40
70527

p40 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

P53
70528

p53 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

P57I
70529

p57 (KIP2/CDKN1C) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Preferred: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Acceptable: None

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

P63
70530

p63 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

PACPI
70531

Prostatic Acid Phosphatase (PACP) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PARVI
70532

Parvovirus Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PAX5
70533

PAX-5 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per

test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PAX8
70534

PAX8 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

PCEAI
70535

Carcinoembryonic Antigen, Polyclonal Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

PGM1
70536

CD68 (PG-M1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PLAP
70539

Placental Alkaline Phosphatase (PLAP) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PMS2
70540

PMS2 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PRLI
70541

Prolactin (PRL) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PROG
70542

Progesterone Receptor (PR) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

PSAIM
70543

Prostate Specific Antigen (PSA) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PTH
70544

Parathyroid Hormone (PTH) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigered	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PU1
70545

PU.1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigered	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

S100
70547

S-100 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per

test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

SDHB
70550

SDHB Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

SMACN
70551

Actin, Smooth Muscle (SMActin) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

SMOTH
70552

Smoothelin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

SOMAT
70553

Somatostatin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

STAT6
70554

Signal Transducer and Activator of Transcription 6 (STAT6), Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

SOX10
70555

SOX10 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

SOX11
70556

SOX11 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

SYNAP
70557

Synaptophysin (SYNAPTO) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TAUI
70558

TAU Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be

rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TBET
70559

T-Box Expressed in T Cells (TBET) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TCRF1
70560

T-Cell Receptor Beta (TCR Beta F1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TCL1A
70561

T-Cell Leukemia/Lymphoma Protein 1A (TCL1A) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

TCRGD
70562

T-Cell Receptor Delta Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TDT
70563

Terminal Deoxynucleotidyl Transferase (TdT) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

TFE3I
70564

Transcription Factor E3 (TFE3) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

THYR
70565

Thyroglobulin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

TIA1
70566

T-Cell Intracellular Antigen 1 (TIA-1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TOXO
70569

Toxoplasma Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per

test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TRAP
70570

Tartrate-Resistant Acid Phosphatase (TRAP) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TRYPN
70572

Trypsin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TRPTS
70573

Tryptase Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TSH
70574

Thyroid-Stimulating Hormone (TSH), Beta Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TTF8G
70575

Thyroid Transcription Factor (8G7G3/1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TTFSP
70576

Thyroid Transcription Factor (SPT24) Immunostain, Technical Component Only

Specimen Requirements: Supplies: Immunostain Technical Only Envelope (T693) Specimen Type: Tissue Container/Tube: Immunostains Technical Only Envelope Preferred: 2 Unstained positively charged glass slide (25- x 75- x 1-mm) per test ordered; sections 4-microns thick. Acceptable: Formalin-fixed, paraffin-embedded tissue block Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TYROS
70577

Tyrosinase (TYROS) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

UBIQ
70578

Ubiquitin (UBIQ) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

VIM
70579

Vimentin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

VIPI
70580

Vasoactive Intestine Polypeptide (VIP), Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

VZV
70581

Varicella Zoster Virus (VZV) Immunostain, Technical

Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigered	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

WT1I
70582

Wilms Tumor (WT-1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigered	

YAP1
70583

Yes-Associated Protein (YAP) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be

rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

FBILM 70587 Biliary Tract Malignancy-Cytology, FISH, Varies

Specimen Requirements: Supplies: PreservCyt Vial (T536) CytoLyt Solution (T564) Specimen Type: Bile duct brushing, bile duct aspirate, hepatobiliary brushing, or hepatobiliary aspirate Container/Tube: Separate ThinPrep vial containing 20 mL PreservCyt or CytoLyt solution for each specimen Specimen Volume: Entire collection Collection Instructions: Label with site specimen was collected from (eg, right hepatic duct or common bile duct).

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 88112; 88377 (if appropriate);

KI67B 70588 Ki-67(MIB-1), Breast, Quantitative Immunohistochemistry, Automated

Specimen Requirements: Supplies: Pathology Packaging Kit (T554) Specimen Type: Preferred: Formalin-fixed, paraffin-embedded tissue block containing invasive or metastatic breast carcinoma Acceptable: 2 Unstained sections, containing invasive or metastatic breast carcinoma, on charged slides cut at 4 microns less than 1 month ago. Tissue on the slides should have been fixed in 10% neutral buffered formalin. Also send one hematoxylin and eosin-stained slide if possible. Submission Container/Tube: Pathology Packaging Kit Collection Instructions: Submit paraffin-embedded invasive or metastatic breast carcinoma tissue. Additional Information: Paraffin block will be returned with the final report.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88361

ERPR
70589

Estrogen/Progesterone Receptor, Semi-Quantitative Immunohistochemistry, Manual

Specimen Requirements: Supplies: Pathology Packaging Kit (T554) Specimen Type: Breast carcinoma Preferred: A paraffin-embedded tissue block containing in-situ, invasive or metastatic breast carcinoma tissue that has been fixed in 10% neutral buffered formalin within 1 hour from surgical collection time and for a total of 6 to 72 hours and shipped at ambient temperature Acceptable: 3 unstained sections, containing carcinoma, on charged slides cut at 4 microns <1 month ago and shipped at ambient temperature Collection Instructions: Submit paraffin-embedded carcinoma tissue Specimen Type: Non-breast carcinoma Preferred: A paraffin-embedded tissue block containing carcinoma tissue that has been fixed in 10% neutral buffered formalin and shipped at ambient temperature Acceptable: 3 unstained sections, containing carcinoma, on charged slides cut at 4 microns <1 month ago and shipped at ambient temperature Collection Instructions: Submit paraffin-embedded carcinoma tissue Additional Information: 1. According to the American Society of Clinical Oncology (ASCO)/College of American Pathologists (CAP) guidelines, estrogen/progesterone receptor protein immunohistochemical test results are only valid for nondecalcified, paraffin-embedded specimens fixed in 10% neutral buffered formalin within 1 hour from surgical collection time and for a total time of 6 to 72 hours. Delay to fixation, under- or overfixation may affect these results. 2. Paraffin blocks will be returned with final report.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360 x 2

RPCWT
70591

Renal Pathology Consultation, Wet Tissue

Specimen Requirements: Specimen Type: Kidney biopsy Supplies: Renal Biopsy Kit (T231) Specimen Volume: Entire specimen Collection Instructions: Collect and prepare biopsy specimens per instructions in Renal Biopsy Preparation Instructions. Additional Information: On Saturdays and holidays, RUSH (same day as receipt) interpretation is available for clinically emergent cases (eg, acute kidney failure, rapidly progressive glomerulonephritis, acute kidney allograft dysfunction) but requires advanced notification and approval by a Mayo Clinic Renal Pathologist (507-284-5677). To request RUSH service outside of regular business hours, contact Mayo Clinic Laboratories at 800-533-1710.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Kidney Biopsy	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88305 (If appropriate); 88348 (If appropriate); 88313 (If appropriate); 88346 (If appropriate); 88350 (If appropriate);

PLAIF 70592 Phospholipase A2 Receptor (PLA2R), Renal Biopsy

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Unstained slides (unfixed) Source: Kidney tissue Slides: 2 Slides Collection Instructions: 2 frozen tissue unstained positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick, centered on the slide, and submitted on dry ice. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Acceptable: Specimen Type: Unfixed tissue block (O.C.T) Source: Kidney tissue Specimen Volume: Entire specimen Collection Instructions: 1. Embed in O.C.T. compound. 2. Freeze specimen and ship on dry ice. Acceptable: Specimen Type: Wet tissue Source: Kidney tissue Supplies: Renal Biopsy Kit (T231) Container/Tube: Renal Biopsy Kit, Zeus/Michel's Specimen Volume: Entire specimen Collection Instructions: Collect specimens according to the instructions in Renal Biopsy Preparation Instructions. Additional Information: If standard immunoglobulin and complement immunofluorescence have already been performed, submit the residual frozen tissue (must contain glomeruli) on dry ice.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Special	Frozen	

CPT Code Information: 88346-primary IF

ALPRT 70593 Alport (Collagen IV Alpha 5 and Alpha 2) Immunofluorescent Stain, Renal Biopsy

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Unstained slides (unfixed) Source: Kidney tissue or skin tissue Slides: 1 Slide Collection Instructions: Submit 1 frozen tissue unstained positively charged glass slide (25- x 75- x 1-mm) per test ordered;

sections should be 4-microns thick, centered on the slide, and shipped on dry ice. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Acceptable: Specimen Type: Unfixed tissue block (O.C.T) Source: Kidney tissue or skin tissue Specimen Volume: Entire specimen Collection Instructions: 1. Embed in O.C.T. compound. 2. Freeze specimen and ship on dry ice. Acceptable: Specimen Type: Wet tissue Source: Kidney tissue or skin tissue Supplies: Renal Biopsy Kit (T231) Container/Tube: Renal Biopsy Kit, Zeus/Michel's Specimen Volume: Entire specimen Collection Instructions: 1. Collect specimens according to the instructions in Renal Biopsy Preparation Instructions. 2. If standard immunoglobulin and complement immunofluorescence has already been performed, ship the residual frozen tissue (must contain glomeruli) on dry ice.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Special	Frozen	

CPT Code Information: 88346

MBX
70594

Muscle Pathology Consultation

Specimen Requirements: Preferred: Specimen Type: Frozen muscle biopsy tissue Supplies: Muscle Biopsy Kit (T541) Collection Instructions: Prepare and transport specimen per instructions in Muscle Biopsy Specimen Preparation Instructions. Additional Information: 1. All specimens and additional paperwork must be labeled with: -Two patient identifiers (first and last name, date of birth, or medical record number) -Pathology accession/case number -Anatomic site 2. Contact the Mayo Clinic Muscle Laboratory at 800-533-1710 for special problems to maximize benefit of the muscle biopsy. Acceptable: Specimen Type: Stained muscle biopsy slides Collection Instructions: 1. Submit all stains performed on the case. 2. All specimens must be labeled with anatomic site. Additional Information: Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: 1.5 cm biopsy

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Frozen (preferred)	
	Ambient	

CPT Code Information: 88342 (if appropriate); 88341 (if appropriate); 88346 (if appropriate);

88350 (if appropriate); 88305 (if appropriate); 88313 (if appropriate); 88319 (if appropriate); 88314 (if appropriate); 88321 (if appropriate); 88323 (if appropriate); 88323-26 (if appropriate); 88325 (if appropriate);

DEXT
70596

Dermatopathology Consultation, Wet Tissue

Specimen Requirements: Supplies: Dermatopathology Media (T101) Sources: Skin or oral mucosa Container/Tube: Screw-capped container or vial containing 10% formalin Specimen Volume: Entire specimen Collection Instructions: For scalp biopsies: when the differential diagnosis includes a scarring alopecia, 2 separate 4-mm punch biopsies are recommended (1 for vertical and 1 for horizontal sections). If a single scalp biopsy is received with the clinical diagnosis of a scarring alopecia, the specimen will be processed with horizontal sections. Additional Information: STAT requests are not accepted for this test.

Specimen Minimum Volume: Size needed depends on diagnosis and size of lesion.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient	

CPT Code Information: 88302 (if appropriate); 88304 (if appropriate); 88305 (if appropriate);

PNBX
70598

Peripheral Nerve Pathology Consultation

Specimen Requirements: Specimen Type: Nerve biopsy tissue, slides, or block Supplies: Nerve Biopsy Collection Kit (T457) Container/Tube: Nerve Biopsy Collection Kit Collection Instructions: Prepare and transport specimen per Nerve Biopsy Specimen Preparation Instructions (T580).

Specimen Minimum Volume: 4.5 cm biopsy

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	
	Frozen	

CPT Code Information: 88305 (if appropriate); 88313 (if appropriate); 88321 (if appropriate); 88323 (if appropriate); 88323-26 (if appropriate); 88325 (if appropriate); 88362 (if appropriate); 88348 (if appropriate); 88342 (if appropriate); 88341 (if appropriate);

SPBX
70599

Epidermal Nerve Fiber Density Consultation, Varies

Specimen Requirements: Preferred: Specimen Type: Skin punch biopsy Supplies: Epidermal Nerve Fiber Density Kit (T696) Source: Distal leg, mid-thigh, dorsal foot, or lower abdomen Container/Tube: Epidermal Nerve Fiber Density Kit (required, no substitutions accepted) Collection Instructions: 1. The standard biopsy for evaluating distal small fiber sensory neuropathy includes two 3-mm skin punch biopsies from the same side of the body. 2. Prepare specimen per instructions on the Epidermal Nerve Fiber Density Preparation Instructions (T703). Acceptable: Specimen Type: PGP 9.5-reacted slides Additional Information: 1. At least one slide reacted with PGP 9.5, using a PGP 9.5 protocol for visualizing epidermal nerve fibers, is required. 2. At least one hematoxylin and eosin-stained slide and one Congo red-stained slide are optional. Additional Information: Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: PGP 9.5-reacted slides and tissue block Note: Visualization of epidermal nerve fibers cannot be done on paraffin blocks. Additional Information: 1. At least one slide reacted with PGP 9.5, using a PGP 9.5 protocol for visualizing epidermal nerve fibers, is required. 2. Tissue block may only be used to create hematoxylin and eosin-stained slides and Congo red-stained slides. Additional Information: Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 88305 (if appropriate); 88313 (if appropriate); 88321 (if appropriate); 88323 (if appropriate); 88323-26 (if appropriate); 88325 (if appropriate); 88348 (if appropriate); 88356 (if appropriate); 88342 (if appropriate);

SUBIF
70620

Immunoglobulin G (IgG) Subtypes Immunofluorescence, Tissue

Specimen Type	Temperature	Time
Special	Frozen	

CPT Code Information: 88346-Primary IF; 88350-If additional IF;

LACTO
70625

Lactotransferrin Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be

rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TAU4
70627

TAU 4 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TAU3
70628

TAU 3 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

P62
70629

p62 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC,If additional IHC;

NSEI
70630

Neuron-Specific Enolase Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

NEUN
70631

Neu-N Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

BAMY
70634

Beta-Amyloid Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ASYN
70635

Alpha-Synuclein Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ABCRS
70636

Alpha/Beta Crystallin IHC, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CNSA
70644

Central Nervous System Consultation, Autopsy, Varies

Specimen Requirements:

Specimen Minimum Volume: Entire collection

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 88037 (if appropriate); 88036 (if appropriate);

HERGM 70911 HER2, Gastric/Esophageal, Semi-Quantitative Immunohistochemistry, Manual

Specimen Requirements: Only formalin-fixed, paraffin-embedded (FFPE) gastric or esophageal adenocarcinoma specimens will be accepted. Fixation in 10% neutral-buffered formalin is preferred. The performance and quality of immunohistochemical stains in 10% neutral-buffered FFPE tissue depends on proper fixation. It is recommended (not required) for surgical specimens to be fixed between 18 and 24 hours and biopsy specimens between 6 and 8 hours. If being ordered for prognostic purposes: Specimen Type: Gastric or esophageal adenocarcinoma Supplies: Pathology Packaging Kit (T554) Preferred: Paraffin-embedded tissue block containing invasive gastric or esophageal adenocarcinoma tissue Additional Information: Paraffin blocks will be returned with final report. Acceptable: Slides Specimen Volume: 5 Collection Instructions: 5 Unstained sections, containing gastric or esophageal adenocarcinoma, on charged slides cut at 4 microns less than 1 month ago.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

HERBN 70913 HER2, Breast, Quantitative Immunohistochemistry, Automated, No Reflex

Specimen Requirements: Supplies: Pathology Packaging Kit (T554) Specimen Type: Preferred: A paraffin-embedded tissue block containing breast cancer tissue that has been fixed in 10% neutral buffered formalin within 1 hour from surgical collection time and for a total of 6 to 72 hours and shipped at ambient temperature Acceptable: 2 unstained sections, containing breast carcinoma, on charged slides cut at 4 microns less than 1 month ago and shipped at ambient temperature. Tissue on the slides should have been fixed in 10% neutral buffered formalin within 1 hour from surgical collection time and for a

total of 6 to 72 hours. Submission Container/Tube: Pathology Packaging Kit (T554) Collection Instructions: Submit paraffin-embedded invasive or metastatic breast carcinoma tissue. Additional Information: 1. When ordering this test, the following questions, as stated on the order form or presented electronically, must be answered: a. "Was specimen fixed in 10% NB formalin w/in 1 hour? Yes, No, or Unknown" b. "Was specimen fixed in 10% NB formalin 6-72 hours? Yes, No, or Unknown" c. "Tissue was decalcified? Yes, No, or Unknown." d. "Tumor type? Primary invasive breast carcinoma or metastatic breast carcinoma." e. "Tumor classification? Invasive breast carcinoma, metastatic breast carcinoma, or micro-invasive breast carcinoma." 2. According to the American Society of Clinical Oncology (ASCO)/College of American Pathologists (CAP) guidelines, HER2 protein immunohistochemical test results are only valid for nondecalcified, paraffin-embedded specimens fixed in 10% neutral buffered formalin within 1 hour from surgical collection time and for a total time of 6 to 72 hours. Under- or overfixation may affect these results. 3. HER2 immunohistochemistry testing on intracystic papillary carcinoma and solid papillary carcinoma, without clearly stating invasive carcinoma, is not appropriate and will be canceled without processing. 4. Paraffin blocks will be returned with final report.

Specimen Minimum Volume: Entire block

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88361

HERGN
70914

HER2, Gastric/Esophageal, Semi-Quantitative Immunohistochemistry, Manual, No Reflex

Specimen Requirements: Only formalin-fixed, paraffin-embedded (FFPE) gastric or esophageal adenocarcinoma specimens will be accepted. Fixation in 10% neutral-buffered formalin is preferred. The performance and quality of immunohistochemical stains in 10% neutral-buffered FFPE tissue depends on proper fixation. It is recommended (not required) for surgical specimens to be fixed between 18 and 24 hours and biopsy specimens between 6 and 8 hours. If being ordered for prognostic purposes: Specimen Type: Gastric or esophageal adenocarcinoma Supplies: Pathology Packaging Kit (T554) Preferred: Paraffin-embedded tissue block containing invasive gastric or esophageal adenocarcinoma tissue Additional Information: Paraffin blocks will be returned with final report. Acceptable: Slides Specimen Volume: 5 Collection Instructions: 5 Unstained sections, containing gastric or esophageal adenocarcinoma, on charged slides cut at 4 microns less than 1 month ago.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

NFSMI
71354

Neurofilament (SMI31) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ASCL1
71355

Achaete-Scute Homolog 1 (ASCL1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

LEF1
71356

Lymphoid Enhancer-Binding Factor 1(LEF1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

OLIG2
71357

OLIG2 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HPVE6
71405

Human Papillomavirus (HPV) High-Risk E6/E7, RNA In Situ Hybridization

Specimen Requirements: Supplies: Pathology Packaging Kit (T554) Specimen Type: Tissue Container/Tube: Immunostain Technical Only Envelope Collection Instructions: Formalin-fixed, paraffin-embedded tissue block; or 5 unstained glass, "positively charged" slides with 4-microns, formalin-fixed, paraffin-embedded tissue Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88365-Primary; 88364-If additional ISH;

BAP1
71481

BAP1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PHTDP
71482

Phosphorylated TDP43 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

FGFRC
71483

Fibroblast Growth Factor Receptor 1, Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CALRC
71486

Calreticulin ex9mut Immunostain, Technical Component Only

Specimen Requirements: Supplies: Immunostain Technical Only Envelope (T693) Specimen Type: Tissue Container/Tube: Immunostain Technical Only Envelope Preferred: 2 Unstained positively charged glass slide (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Acceptable: Formalin-fixed, paraffin-embedded (FFPE) tissue block Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

EBNA2
71487

Epstein Barr Nuclear Antigen 2 (EBNA2) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

KINET
71503

Ki-67(MIB-1), Gastrointestinal/Pancreatic Neuroendocrine Tumors, Quantitative Immunohistochemistry, Automated

Specimen Requirements: Supplies: Pathology Packaging Kit (T554) Specimen Type: Preferred: Formalin-fixed, paraffin-embedded tissue block containing neuroendocrine tumor of the pancreas or gastrointestinal (GI) tract including metastases. Acceptable: 2 unstained sections, containing neuroendocrine tumor of the pancreas or GI tract including metastases, on charged slides cut at 4 microns <1 month ago. Tissue on the slides should have been fixed in 10% neutral buffered formalin. Submission Container/Tube: Pathology Packaging Kit Collection Instructions: Submit formalin-fixed, paraffin-embedded tissue block. Additional Information: Paraffin block will be returned with the final report.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88361

SALL4
71534

SALL4 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

BRG1
71537

BRG1 (SMARCA4) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MERKC
71538

Merkel CC (MCPyV) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

KINM 71667 Ki-67(MIB-1), Gastrointestinal/Pancreatic Neuroendocrine Tumors, Quantitative Immunohistochemistry, Manual

Specimen Requirements: This is not an orderable test. Order PATHC / Pathology Consultation. The consultant will determine the need for special stains. Supplies: Pathology Packaging Kit (T554) Specimen Type: Preferred: Formalin-fixed, paraffin-embedded tissue block containing neuroendocrine tumor of the pancreas or gastrointestinal (GI) tract including metastases. Acceptable: 2 unstained sections, containing neuroendocrine tumor of the pancreas or GI tract including metastases, on charged slides cut at 4 microns <1 month ago. Tissue on the slides should have been fixed in 10% neutral buffered formalin. Submission Container/Tube: Pathology Packaging Kit Collection Instructions: Submit formalin-fixed, paraffin-embedded tissue block Additional Information: Paraffin block will be returned with the final report.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

KIBM 71668 Ki-67(MIB-1), Breast, Semi-Quantitative Immunohistochemistry, Manual

Specimen Requirements: This is not an orderable test. Order PATHC / Pathology Consultation. The consultant will determine the need for special stains. Supplies: Pathology Packaging Kit (T554) Specimen Type: Preferred: Formalin-fixed, paraffin-embedded tissue block containing invasive or metastatic breast carcinoma Acceptable: 2 unstained sections, containing invasive or metastatic breast carcinoma, on charged slides cut at 4 microns <1 month ago. Tissue on the slides should have been fixed in 10% neutral buffered formalin. Submission Container/Tube: Pathology Packaging Kit (T554) Collection Instructions: Submit paraffin-embedded invasive or metastatic breast carcinoma tissue. Additional Information: Paraffin block will be returned with the final report.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

DNJB9
71739

DNAJB9 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HPCUT
71743

Hematopathology Consultation, Client Embed

Specimen Requirements: All specimens are required to perform testing. Additional Information: All specimens and paperwork must be labeled with: -Two patient identifiers (patient name, date of birth, medical record number, case number, or pathology ID -Specimen type Information on collecting, packaging, and shipping specimens, is available: -Bone Marrow Core Biopsy, Clot, and Aspirate Collection Guideline -Assistance with Bone Marrow Collection Specimen Type: Bone marrow aspirate Slides: 5 Preferred: Freshly prepared slides made at the time of specimen collection Acceptable: Slides made from EDTA bone marrow specimen, within 2 hours of collection Submission Container/Tube: Plastic slide holder Collection Instructions: 1. Prepare slides of bone marrow aspirate. 2. If bone marrow units are sparse, or absent or aspirate is a dry tap, make biopsy touch prep slides. 3. Air dry slides. Do not place on hot plate to dry. 4. Place Parafilm around the slide carriers holding unstained slides to prevent exposure to formalin fumes during transport. Place slides in a separate bag apart from any formalin-fixed clot or core biopsy specimens. If using slide carriers, make sure they have not been used to carry fixed slides previously. Specimen Type: Bone marrow aspirate Container/Tube: Lavender top (EDTA) and yellow top (ACD solution A or B) Specimen Volume: 2 x 3 mL in EDTA and 2 x 6 mL in ACD solution A or B Collection Instructions: 1. Aspirate per standard bone marrow collection procedure. 2. Send bone marrow specimens in original tubes. Do not aliquot. Specimen Type: Bone marrow aspirate clot Container/Tube: Bone marrow clot embedded in paraffin block Collection Instructions: Process and embed clot in paraffin Specimen Type: Bone marrow core biopsy Container/Tube: Fixed biopsy core embedded in paraffin block Collection Instructions: Process and embed core in paraffin. Specimen Type: Blood Slides: 2 Preferred: 2 Freshly prepared fingerstick slides Acceptable: 2 Slides made from whole blood in EDTA, within 8 hours of collection Submission Container/Tube: Plastic slide holder Collection Instructions: 1. Prepare 2 smears of even thickness. 2. Place Parafilm around the slide carriers holding unstained slides to prevent exposure to formalin fumes during transport. Place slides in a separate bag apart from any formalin-fixed clot or core biopsy specimens. If using slide carriers, make sure they have not been used to carry fixed slides previously.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 88321 (if appropriate); 88323 (if appropriate); 88325 (if appropriate);

AFSH
71768

Alpha Follicle Stimulating Hormone Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

BILAO
71917

Biliary Tract Malignancy, FISH, Varies

Specimen Requirements: Supplies: PreservCyt Vial (T536) Specimen Type: Bile duct brushing, bile duct aspirate, hepatobiliary brushing, or hepatobiliary aspirate (fine-needle aspiration is not acceptable) Container/Tube: Separate ThinPrep vial, containing 20 mL PreservCyt or CytoLyt solution for each specimen Specimen Volume: Entire collection Collection Instructions: 1. If performing local cytology in addition to fluorescence in situ hybridization testing, aliquot half of the specimen into another ThinPrep vial before processing the specimen. 2. Submission of residual specimen (after processing other testing) may compromise the sensitivity of the test. 3. Label each specimen with specific source (eg, right hepatic duct or common bile duct).

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 88377

SF1
72121

SF-1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PIT1
72124

PIT-1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HISME
72127

Histone H3 Trimethyl K27 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TPDPC
72129

Physician Interpretation, Diagnostic, Varies

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	THIN PREP	
	Refrigerated	THIN PREP	

CPT Code Information: 88141

KI67P
72130

Ki-67(MIB-1), Pulmonary, Quantitative Immunohistochemistry, Automated

Specimen Requirements: Supplies: Pathology Packaging Kit (T554) Specimen Type: Preferred: Formalin-fixed, paraffin-embedded tissue block containing carcinoid/atypical carcinoid tumor of the lung including metastases. Acceptable: 2 Unstained sections containing carcinoid/atypical carcinoid tumor of the lung including metastases on charged slides cut at 4 microns <1 month ago. Tissue on the slides should have been fixed in 10% neutral buffered formalin. Container/Tube: Pathology Packaging Kit

Collection Instructions: Submit formalin-fixed, paraffin-embedded tissue block. Additional Information: Paraffin block will be returned with the final report.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88361

KIPM
72131

Ki-67(MIB-1), Pulmonary, Quantitative Immunohistochemistry, Manual (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see KI67P / Ki-67 (MIB-1), Pulmonary, Quantitative Immunohistochemistry, Automated. Supplies: Pathology Packaging Kit (T554) Specimen Type: Preferred: Formalin-fixed, paraffin-embedded tissue block containing carcinoid/atypical carcinoid of the lung including metastases. Acceptable: 2 Unstained sections on charged slides cut at 4 microns <1 month ago. Tissue on the slides should have been fixed in 10% neutral buffered formalin. Container/Tube: Pathology Packaging Kit Collection Instructions: 1. Submit formalin-fixed, paraffin-embedded tissue block. 2. Attach the green pathology address label included in the kit to the outside of the transport container. Additional Information: Paraffin block will be returned with the final report.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

TPSPC
72162

Physician Interpretation Screen, Varies

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	THIN PREP	
	Refrigerated	THIN PREP	

CPT Code Information: 88141

CVSPC
72163

Physician Interpretation Conventional, Varies

Specimen Requirements: This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	SLIDE	
	Refrigerated	SLIDE	

CPT Code Information: 88141

FBAC
75012

Bile Acids, Urine

Specimen Requirements: Patient Information: It is preferable for patients to be off Urso or Actigall for 5 days before sample collection Collection Container: Sterile urine container Specimen Volume: 5 to 25 mL Collection Instructions: 1. Collect 5 to 25 mL random urine specimen. 2.. No preservative. 2. Send frozen. Specimen Stability Information: Frozen >10 years Additional Information: 1. Submit Clinical history/Preliminary diagnosis with specimen. 2. If possible, send both urine and serum (ZW166 / Bile Acids Serum [referral lab code 9001004]). Urine is analyzed for all patients, if the urine result shows evidence of a metabolic abnormality, serum will be tested. Urine and serum must be ordered separately as they are 2 separate tests with separate charges.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	
	Ambient	48 hours
	Refrigerated	48 hours

CPT Code Information: 83789

FGTIA
75019

Tiagabine (Gabitril), Serum

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 3 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80199

FFTRZ
75024

Trazodone (Desyrel)

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 1 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80338

FUABF
75099

Uric Acid, Body Fluid

Specimen Requirements: Specimen Type: Body fluid Sources: Drain, peritoneal/ascites, pleural or synovial fluid Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge to remove cellular material. 2. Aliquot 1 mL body fluid into a plastic vial. 3. Send frozen. 4. Specimen source must be provided.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Frozen (preferred)	180 days
	Refrigerated	5 days
	Ambient	24 hours

CPT Code Information: 84560

FNSVG
75140

Vaginitis (VG), NuSwab

Specimen Requirements: Specimen Type: Vagina swab Container/Tube: Aptima Multitest Swab Specimen Collection kit; Aptima Unisex Swab Specimen Collection Kit Specimen Volume: 1 Swab Collection Instructions: 1. Collect vaginal fluid sample using the Aptima swab by contacting the swab to the lower third of the vaginal wall and rotating the swab for 10 to 30 seconds to absorb fluid. 2. Immediately place the swab into the transport tube and carefully break the swab shaft against the side of the tube. 3. Tightly screw on the cap. 4. Submit one vaginal Aptima Multitest or Unisex swab. 5. Send refrigerate.

Specimen Minimum Volume: One swab

Transport Temperature:

Specimen Type	Temperature	Time
Swab	Refrigerated (preferred)	30 days
	Ambient	30 days

CPT Code Information: 87801; 87798 x 3; 87661;

FLDLD
75160

LDL Cholesterol, Direct

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Specimen Volume: 1 mL Serum Collection Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	365 days

CPT Code Information: 83721

FPOLO
75165

Poliovirus (Types 1, 3) Antibodies, Neutralization

Specimen Requirements: Specimen Type: Serum Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Ship refrigerated.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	5 days

CPT Code Information: 86382 x 2

ZW288
75170

Miscellaneous UF Health Pathology Laboratories

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FMARI
75172

Cannabinoid Analysis, Whole Blood

Specimen Requirements: Draw blood in a purple-top (EDTA), green-top (sodium-heparin) or grey-top (NaF/oxalate) tube(s). Send 7 mL of whole blood refrigerated in a plastic vial.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80307; 80349 (if appropriate); G0480 (if appropriate);

FH1N5
75187

Hepatitis C Viral RNA Genotype 1 NS5a Drug Resistance

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Plasma Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Plasma gel Submission Container/Tube: Plastic vial Specimen volume: 2 mL Plasma Collection Instructions: 1. Centrifuge and aliquot plasma into a plastic vial. 2. Send refrigerated. Acceptable: Specimen Type: Serum Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen volume: 2 mL Serum Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial 2. Send refrigerated.

Specimen Minimum Volume: Serum/Plasma: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	42 days
	Ambient	72 hours

CPT Code Information: 87902

FH3N5
75188

Hepatitis C Viral RNA Genotype 3 NS5a Drug Resistance

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Plasma Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Plasma gel tube Specimen Volume: 2 mL Plasma Collection Instructions: 1. Centrifuge and aliquot plasma into a plastic vial. 2. Send refrigerate. Acceptable: Specimen Type: Serum Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Specimen Volume: 2 mL Serum Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Plasma or Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	42 days
	Ambient	72 hours

CPT Code Information: 87902

ZW293
75252

Miscellaneous CBL Path Inc.

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FCLCN
75262

CLCN1 DNA Sequencing Test

Specimen Requirements: Note: Collection date and informed consent are required. Specimen Type: Whole blood Container/Tube: Lavender-top (EDTA) Specimen Volume: 8 mL Collection Instructions: 1. Invert several times to mix. 2. Send ambient.

Specimen Minimum Volume: 6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Ambient (preferred)	10 days
	Refrigerated	10 days

CPT Code Information: 81406

FSCN4
75263

SCN4A (Myotonia) DNA Sequencing Test

Specimen Requirements: Note: Collection date and informed consent are required. Container/Tube: Lavender-top (EDTA) Specimen Volume: 8 mL Pediatric (0-3 years) Volume: 2 mL Collection Instructions: 1. Invert several times to mix. 2. Send ambient. Additional Information: Higher blood volumes ensure adequate DNA quantity, which varies with WBC, specimen condition, and need for confirmatory testing. Patients aged 0 to 3 years have higher WBC, yielding more DNA per mL of blood.

Specimen Minimum Volume: 6 mL; Pediatric (0-3 years): 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Ambient (preferred)	10 days
	Refrigerated	10 days

CPT Code Information: 81406

ZW298
75278

Miscellaneous IntrinsicDx

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information,

family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FFCAH
75305

Congenital Adrenal Hyperplasia (CAH) Pediatric Profile 6, Comprehensive Screen

Specimen Requirements: Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 3.5 mL Serum Collection Instructions: 1. Within 45 minutes of collection, centrifuge and aliquot serum into a plastic vial. 2. Send frozen. Additional Information: To avoid delays in turnaround time when requesting multiple tests, submit separate frozen specimens for each test requested.

Specimen Minimum Volume: Serum: 2 mL Note: This volume does not allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen	90 days

CPT Code Information: 82633 - DOC; 82634 - 11-Desoxycortisol; 82157 - Androstenedione; 82533 - Cortisol; 82626 - DHEA; 84143 - 17-OH-Pregnenolone; 84144 - Progesterone; 83498 - 17-OH-Progesterone; 84403 - Testosterone;

FMARC
75307

Bupivacaine (Marcaine)

Specimen Requirements: Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 1 mL of serum frozen in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen (preferred)	180 days
	Ambient	72 hours
	Refrigerated	72 hours

CPT Code Information: 80299

FEHAG
75350

Entamoeba histolytica Antigen, EIA

Specimen Requirements: Preferred Specimen Type: Unpreserved stool Supplies: Sterile stool container Container/Tube: Sterile stool container Specimen Volume: 2 g Specimen Stability Information: Frozen Collection Instructions: Collect 2 grams of fresh unpreserved stool in sterile container. Send specimen frozen. NOTE: Separate specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: 1 gram

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen (preferred)	7 days
	Refrigerated	48 hours

CPT Code Information: 87337

FMSS2
75351

Maternal Serum Screening, Integrated, Specimen #2, Alpha Fetoprotein, hCG, Estriol, and Inhibin A

Specimen Requirements: Specimen collection must occur between 14 weeks, 0 days and 24 weeks, 6 days gestation. The recommended time for maternal serum screening is 16 to 18 weeks gestation. Acceptable date ranges to collect the second sample is provided in the Integrated-1 report. Collection Container/Tube: Serum gel or red top Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Serum Collection Instructions: 1. As soon as possible or within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. 2. Send refrigerate. Note: This test requires that a previous first trimester specimen, FFMSS / Maternal Serum Screening, Integrated, Specimen #1, PAPP-A, NT has been performed.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	365 days
	Ambient	72 hours

CPT Code Information: 81511

FD10S
75352

Drugs of Abuse Screen, Serum

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: 1. Promptly centrifuge and aliquot 4 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 1.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	14 days

CPT Code Information: 80307

FCYNB
75370

Cyanide, Blood Test

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Container/Tube: Gray top (potassium oxalate/sodium fluoride) Specimen volume: 2 mL Collection instructions: Collect 2 mL whole blood in potassium oxalate/sodium fluoride Gray top tube, send frozen.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood NaFl-KOx	Frozen (preferred)	90 days
	Refrigerated	7 days

CPT Code Information: 82600

FDGTX
75374

Digitoxin, Serum

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Promptly centrifuge and aliquot serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	90 days

CPT Code Information: 80299

FBIUR
75383

Bicarbonate, Urine

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Container/Tube: Plastic preservative-free urine container Specimen Volume: 1 mL Collection Instructions: 1. Collect 1 mL from a random urine collection in a preservative free plastic urine container. 2. Send refrigerated.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Frozen	30 days
	Ambient	48 hours

CPT Code Information: 82374

FMELA
75386

Melatonin, Plasma

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Specimen Type: Plasma Collection Container/Tube: Preferred: Lavender top

(EDTA) Acceptable: Pink top (EDTA) Submission Container/Tube: Plastic vial Specimen volume: 3 mL Collection instructions: 1. Draw blood in EDTA (lavender top) tube(s). 2. Centrifuge and send 1 mL of plasma refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	30 days
	Frozen	365 days
	Ambient	14 days

CPT Code Information: 80299

FBUMT
75387

Bupropion and Metabolite, Serum

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial (preservative free) Specimen Volume: 1 mL Serum Collections Instructions: 1. Centrifuge and aliquot 1 mL of serum into a preservative-free plastic vial. 2. Send frozen.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen	30 days

CPT Code Information: 80338

FACES
75388

Acetoacetate, Serum

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Serum Collections Instructions: 1. Centrifuge and aliquot 3 mL of serum into a plastic vial. 2. Send frozen.

Specimen Minimum Volume: Serum: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 82010

FMETN
75389

Metformin, Plasma

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Specimen Type: Plasma Collection Container/Tube: Lavender top or pink top (EDTA) (Plasma gel tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen volume: 1 mL Collection instructions: 1. Draw blood in an EDTA (lavender top or pink top) tube. 2. Centrifuge and aliquot 1 mL of plasma into a preservative-free plastic vial. 3. Send refrigerated (preferred) Specimen Stability Information: Refrigerated (preferred) 30 days/Ambient 30 days/Frozen 2 years

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	30 days
	Ambient	30 days
	Frozen	

CPT Code Information: 80299

FCOPP
75391

Copper, RBCs

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Specimen Type: RBCs Collection Container/Tube: Royal Blue top tube (Trace metal-free; EDTA) Specimen Volume: 1 mL Collection Instructions: Draw blood in a royal blue top (trace metal free; EDTA) tube(s). Centrifuge and separate plasma within two hours of collection. Leave RBCs in the original collection container and replace stopper. Send 1 mL RBC's refrigerated. NOTE: Tubes containing Heparin based anticoagulants are not acceptable.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
RBCS	Refrigerated	14 days	METAL FREE

CPT Code Information: 82525

FPALI
75392

Paliperidone, Serum

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Specimen Type: Serum Collection Container/Tube: Red Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Draw blood in a plain, red-top tube(s). (Serum gel tube is not acceptable.) Spin down and send 1 mL of serum refrigerate in a preservative-free plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	

CPT Code Information: 80342

FAPIX
75395

Apixaban, Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	29 days
	Ambient	29 days
	Frozen	

CPT Code Information: 80299

FACYS
75396

Acyclovir, Plasma

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Collection Container/Tube: Lavender top or pink top (EDTA) (Plasma gel/PST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Plasma Collections Instructions: 1. Centrifuge and aliquot 1 mL of plasma into a plastic vial. 2. Send refrigerated.

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	30 days
	Frozen	120 days
	Ambient	30 days

CPT Code Information: 80299

FBACS
75397

Baclofen, Serum

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collections Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	120 days
	Ambient	14 days

CPT Code Information: 80369

FSINS
75400

Sinemet, Serum

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Promptly centrifuge and aliquot serum into a plastic vial. 2. Immediately freeze specimen on dry ice or results will be compromised. 3. Send frozen.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen	6 days

CPT Code Information: 80299

FLEVA
75401

Levamisole, Urine

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Collection Container: Plastic, preservative-free urine container Specimen Volume: 1 mL Collection Instructions: 1. Collect 1 mL random urine specimen in a plastic preservative-free urine container. 2. Ship refrigerate.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Ambient	30 days
	Frozen	30 days

CPT Code Information: 80375

FORAC
75402

Formic Acid, Serum

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: 1. Promptly centrifuge and aliquot serum into a plastic vial. 2. Send refrigerated. Specimen Stability Information: Refrigerate (preferred) 30 days/Ambient 7 days/Frozen 15 months

Specimen Minimum Volume: Serum: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	30 days
	Ambient	7 days
	Frozen	

CPT Code Information: 83921

FPINP
75410

Pine Ponderosa IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

ZW305
75411

Misc Washington University Neuromuscular Clinical Lab

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FCYTG
75445

Cytomegalovirus IgG Avidity

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1.Centrifuge and aliquot serum into a plastic vial 2.Send refrigerated.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86644

FARP
75446

Autoimmune Retinopathy Panel by Immunoblot (ARP)

Specimen Requirements: Submit the following required information with specimen: 1. Completed OHSU Ocular request form 2. Clinical history 3. Referring physician information (name & phone number) -NOTE: Without this information, testing cannot be completed. Submit only 1 of the following specimens: Specimen Type: Serum Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Serum Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial. 2. Send refrigerate. Specimen Type: Plasma Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen volume: 5 mL Plasma Collection Instructions: 1. Centrifuge and aliquot plasma into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated	7 days

CPT Code Information: 84182 x 8

FCARP
75447

Cancer-Associated Retinopathy Panel (CARP) by Immunoblot and IHC

Specimen Requirements: Submit only one of the following specimens: Serum: Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 5 mL serum refrigerated in a plastic vial. Plasma: Draw blood in a lavender-top (EDTA) tube(s). Spin down and send 5 mL EDTA plasma refrigerated in a plastic vial. Complete and submit with specimen: 1. Completed OHSU Ocular request form 2. Clinical history 3. Referring physician information (name & phone number) -NOTE: Without this information, testing cannot be completed.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated	7 days

CPT Code Information: 84182 x 8

FONS
75448

Western blot for anti-optic nerve autoantibodies in the serum

Specimen Requirements: Complete and submit with specimen: -Completed OHSU Ocular Requisition Form -Clinical history -Healthcare professional information (name and phone number) NOTE: Without this information, testing cannot be completed. Submit only 1 of the following specimens: Specimen Type: Serum Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Serum Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial. 2. Label specimen as serum. 3. Send refrigerated. Specimen Type: Plasma Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen volume: 5 mL Plasma Collection Instructions: 1. Centrifuge and aliquot plasma into a plastic vial. 2. Label specimen as plasma. 3. Send refrigerated.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated	7 days

CPT Code Information: 84182

FMARP
75449

Melanoma Associated Retinopathy MAR Panel by Immunoblot and IHC

Specimen Requirements: Submit only one of the following specimens: Serum: Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 5 mL serum refrigerated in a plastic vial. Plasma: Draw blood in a lavender-top (EDTA) tube(s). Spin down and send 5 mL EDTA plasma refrigerated in a plastic vial. Complete and submit with specimen: Completed OHSU Ocular request form Clinical history Referring physician information (name & phone number) -NOTE: Without this information, testing cannot be completed.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated	7 days

CPT Code Information: 84182 x 6

FPLAT
75450

Platinum, Serum

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Draw blood in a plain, royal blue top tube(s). (Serum gel tube is not acceptable.) Spin down and send 1 mL of serum refrigerated in an acid washed (MCL Supply T619) or trace metal-free plastic container.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	60 days
	Ambient	60 days
	Frozen	60 days

CPT Code Information: 83018

FNEOS
75451

Neopterin

Specimen Requirements: Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Red top or serum gel Submission Container/Tube: Amber vial Specimen Volume: 0.8 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.8 mL of serum into an amber vial to protect from light. 2. Send frozen.

Specimen Minimum Volume: Serum: 0.5 mL; Note: This volume does not allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Frozen (preferred)	180 days	LIGHT PROTECTED
	Refrigerated	72 hours	LIGHT PROTECTED

CPT Code Information: 83520

ZW124
75456

Miscellaneous Sequenom

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FBMO
75510

MVista Blastomyces Quantitative Antigen, Fluid

Specimen Requirements: Specimen Type: Spinal fluid (CSF) or bronchoalveolar fluid Container/Tube: Sterile, leak-proof screw cap container Specimen Volume: 2 mL Collection Instructions: 1. Collect 2 mL of CSF or bronchoalveolar lavage fluid. 2. Submit specimen in a sterile, leak-proof screw cap container labeled with specimen type. 3. Send refrigerate. Additional Information: 1. Specimen type is required. 2. A separate order is required for each specimen. 3. Sputolysin, sodium hydroxide, and potassium hydroxide treatment degrade the analyte detected in the assay.

Specimen Minimum Volume: Spinal fluid: 0.8 mL; Bronchoalveolar fluid: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	

CPT Code Information: 87449

FWARP
75517

Warfarin, Plasma

Specimen Requirements: **Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Collection Container/Tube: Lavender top or pink top (EDTA) (Plasma gel tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen volume: 1 mL Plasma Collection instructions: 1. Promptly centrifuge and aliquot 1 mL of plasma into a preservative-free plastic vial. 2. Send refrigerated. Specimen Stability Information: Refrigerated (preferred) 30 days/Ambient 30 days/Frozen 15 months

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	30 days
	Ambient	30 days
	Frozen	

CPT Code Information: 80375

FGANP
75518

Ganciclovir, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	30 days
	Frozen	120 days
	Ambient	30 days

CPT Code Information: 80299

FGGMC
75519

Toxoplasma gondii Antibodies (IgG, IgM), ELISA, CSF

Specimen Requirements: Container/Tube: Sterile container Specimen Volume: 1 mL Collection Instructions: 1. Submit 1 mL of spinal fluid (CSF) in a sterile, leak-proof container. 2. Send refrigerate.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86777-IgG; 86778-IgM;

FCP13
75523

Cytokine Panel 13, CSF

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: 1. Transfer 1 mL CSF to a sterile plastic container. 2. Freeze within 30 minutes and send frozen. Note: Critical frozen. Additional specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen	30 days

CPT Code Information: 83520 x 12; 83529;

FCLMS
75524

Clonazepam and Metabolite, Serum

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Specimen Type: Serum Collection Container/Tube: Red top Submission Container/Tube: Plastic, preservative-free vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and send 1 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	30 days

CPT Code Information: 80299

FDA1S
75525

Drugs of Abuse (10 Panel) and Alcohol Screen, Serum

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: 1. Collect specimen using alcohol-free skin preparation. 2. Promptly centrifuge and aliquot serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: Serum: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	14 days

CPT Code Information: 80307x2; ;

FCBDS
75527

Cannabidiol, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	30 days
	Ambient	14 days
	Frozen	

CPT Code Information: 80299

FFMTH
75544

Meconium Methadone Screen with Reflex Confirmation

Specimen Requirements: Container/Tube: Sterile collection container Specimen Volume: 3 g Collection Instructions: Collect specimen into the same sterile collection container until 3 g of meconium have been collected or until the first milk stool appears. When at least 3 g of meconium has been collected, tightly screw on the cap of the collection vial and send specimen ambient. Note: Specimens from different voids may be pooled if necessary.

Specimen Minimum Volume: 1 g

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Ambient (preferred)	14 days
	Frozen	365 days
	Refrigerated	14 days

CPT Code Information: 80307

FDFEN
75547

Dog Fennel (Anthemis cotula) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FPDD
75548

Pigeon/Dove Droppings Gel Diffusion

Specimen Requirements: Specimen Type: Serum Container/Tube: Red or SST Specimen Volume: 0.5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86331

FHLCA
75550

Immunoglobulin A (IgA) Heavy and Light Chain (HLC) Pairs, Kappa and Lambda with Ratio

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.75 mL serum Collection Instructions: 1. Centrifuge immediately after coagulation (30 minutes) to prevent hemolysis. 2. Aliquot 0.75 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 83521 x 2

FHLCG
75551

Immunoglobulin G (IgG) Heavy and Light Chain (HLC) Pairs, Kappa and Lambda with Ratio

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.75 mL serum Collection Instructions: 1. Centrifuge immediately after coagulation (30 minutes) to prevent hemolysis. 2. Aliquot 0.75 mL of serum into a plastic vial. 3. Send refrigerate

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 83521 x 2

FEBGP
75552

Exotic Bird Panel IgG

Specimen Requirements: Specimen Type: Serum Container/Tube: Red or SST Specimen Volume: 0.5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 86001 x4

FADBC
75553

Adenosine Deaminase, RBC

Specimen Requirements: Container/Tube: Lavender top (EDTA), pink top (K2 EDTA), or green top (sodium or lithium heparin) Specimen Volume: 1 mL Collection Instructions: 1. Send whole blood in original tube. 2. Send refrigerated.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	15 days
	Ambient	15 days

CPT Code Information: 84311

FFTMV
75554

Trichophyton Mentagrophytes (var interdigitale) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FPIGF
75555

Pigeon Feathers IgG

Specimen Requirements: Specimen Type: Serum Container/Tube: Red or SST Specimen Volume: 0.5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86001

FCCA3
75556

Cashew Component rAna o 3

Specimen Requirements: Specimen Type: Serum Container/Tube: Red or SST Specimen Volume: 0.5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	28 days

CPT Code Information: 86008

FCAIG
75561

Cockroach American (Periplaneta americana) IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1.

Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FCZAC 75563 Certolizumab and Anti-Certolizumab Antibody, DoseASSURE CTZ

Specimen Requirements: Patient Preparation: High serum biotin concentrations in patients taking biotin supplements may cause an interference in this assay. Patients may be advised to stop biotin consumption at least 72 hours prior to sample collection. Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: 1. Allow a minimum clotting time of 30 to 60 minutes. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. 3. Send frozen. To avoid delays in turnaround time when requesting multiple tests, submit separate frozen specimens for each test requested.

Specimen Minimum Volume: Serum: 0.6 mL, Note: This volume does not allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Refrigerated	14 days

CPT Code Information: 80299; 82397;

FGAGA 75564 Golimumab and Anti-Golimumab Antibody, DoseASSURE GOL

Specimen Requirements: Specimen Type: Serum Container/Tube: SST or Red Specimen Volume: 3 mL Collection Instructions: Draw blood in a serum gel tube(s), plain red-top tube(s) is acceptable. Serum must be separated from cells within 45 minutes of venipuncture. Spin down and send 3 mL of serum frozen in a plastic vial. To avoid delays in turnaround time when requesting multiple tests, please submit separate frozen specimens for each test requested. NOTE: High serum biotin concentrations in

patients taking biotin supplements may cause an interference in this assay. Patients may be advised to stop biotin consumption at least 72 hours prior to sample collection.

Specimen Minimum Volume: 1 mL (Note: This volume does not allow for repeat testing.)

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	7 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 80299; 82397;

FHZCP
75565

Hazelnut Component Panel

Specimen Requirements: Specimen Type: Serum Container/Tube: Red or SST Specimen Volume: 1 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 1 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	28 days

CPT Code Information: 86008 x 4

FRBP
75570

Retinol Binding Protein

Specimen Requirements: Specimen Type: Serum Patient Preparation: Fasting: 12 hours, required Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Specimen Volume: 2 mL serum Collection Instructions: 1. Centrifuge and aliquot 2 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	20 days
	Frozen	180 days

CPT Code Information: 83883

FASAB
75571

Aspergillus Antibodies, Quantitative, DID

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Centrifuge immediately after coagulation (30 minutes) to prevent hemolysis. 2. Aliquot 1 mL of serum into a plastic vial. 3. Send frozen.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Ambient	14 days
	Refrigerated	14 days

CPT Code Information: 86606 x 3

FWCR1
75573

Walnut Component rJug r 1

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	28 days

CPT Code Information: 86008

FIVCZ
75575

Isavuconazole (CRESEMBA) LC-MS/MS

Specimen Requirements: Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send frozen.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Ambient	14 days
	Refrigerated	14 days

CPT Code Information: 80299

FHCC1
75576

Hazelnut Component rCor a 1

Specimen Requirements: Specimen Type: Serum Container/Tube: Red or SST Specimen Volume: 0.5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	28 days

CPT Code Information: 86008

FVENE
75577

Venison IgE

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1.

Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86003

FBNC1
75583

Brazil Nut Component rBer e 1

Specimen Requirements: Specimen Type: Serum Container/Tube: Red or SST Specimen Volume: 0.5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	28 days

CPT Code Information: 86008

FFWNC
75584

Walnut Component rJug r 3

Specimen Requirements: Specimen Type: Serum Container/Tube: Red or SST Specimen Volume: 0.5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	84 days
	Ambient	28 days

CPT Code Information: 86008

FCAEC
75587

Cysticercus Antibody (IgG), ELISA, CSF

Specimen Requirements: Specimen Type: Spinal fluid Collection Container/Tube: Sterile container Submission Container/Tube: Sterile, plastic screw-cap vial Specimen Volume: 1 mL Collection Instructions: 1. Collect spinal fluid (CSF) in a sterile container. 2. Aliquot 1 mL CSF into a sterile, plastic screw-cap vial. 2. Refrigerate specimen. 3. Send refrigerate.

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86682

FFMI2
75591

Anti-Mi-2 Ab

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: 1. Within 1 hour of collection, centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum: 0.5 mL Note: This volume does not allow for repeat testing.

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days
	Ambient	7 days

CPT Code Information: 83516

FMMPP
75594

MyoMarker 3 Plus Profile

Specimen Requirements: Collection Container/Tube: 10 mL Red Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Acceptable: SST Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is acceptable. Separate serum from cells within 1 hour of collection and send 5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 4 mL (volume does NOT allow for repeat testing)

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days
	Ambient	7 days

CPT Code Information: 83516 x 10; 86235 x 7 ;

FMYO3
75595

MyoMarker 3 Profile

Specimen Requirements: Collection Container/Tube: 10 mL Red Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Acceptable: SST Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is acceptable. Separate serum from cells within 1 hour of collection and send 5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 4 mL (volume does NOT allow for repeat testing)

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days
	Ambient	7 days

CPT Code Information: 83516 x 9; 86235 x 7;

FCANG
75605

Candida albicans IgG

Specimen Requirements: Specimen Type: Serum Container/Tube: Red or SST Container/Tube: Red Specimen Volume: 0.5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is acceptable. Spin down and send 0.5 mL of serum Frozen in a sterile, screw top tube.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	365 days
	Refrigerated	28 days
	Ambient	7 days

CPT Code Information: 86001

FATHO
75619

Anti-Th/To Ab

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: 1. Within 1 hour of collection, centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 0.3 mL Note: This volume does not allow for repeat testing.

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days
	Ambient	7 days

CPT Code Information: 83516

FACN1
75620

Anti-cN-1A Ab (NT5c1A) IBM

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: 1. Within 1 hour of specimen collection, centrifuge and aliquot 2 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 0.5 mL, Note: this volume does not allow for repeat testing.

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days
	Ambient	7 days

CPT Code Information: 83516

FSERO
75621

SeroNeg RAdx3 Profile

Specimen Requirements: Collection Container/Tube: 10 mL Red Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Acceptable: SST Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is acceptable. Spin down and send 3 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 3 mL (volume does NOT allow for repeat testing)

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days
	Ambient	7 days

CPT Code Information: 83520; 83516 x2;

FAMDA
75622

Anti-MDA-5 Ab (CADM-140)

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 0.3 mL Note: This volume does NOT allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days
	Ambient	7 days

CPT Code Information: 83516

FAPMA
75623

Anti-PM/Scl-100 Ab

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Within 1 hour of collection, centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 0.3 mL Note: This volume does not allow for repeat testing.

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days
	Ambient	7 days

CPT Code Information: 86235

FFRFT
75624

Anti-Synthetase Profile

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Serum Collection Instructions: 1. Within 1 hour of collection, centrifuge and aliquot 3 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 1 mL; Note: This volume does not allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days
	Ambient	7 days

CPT Code Information: 83516 x 4; 86235;

FSCPR
75625

Scleroderma Comprehensive Profile

Specimen Requirements: Collection Container/Tube: 10 mL Red Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Acceptable: SST Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is acceptable. Spin down and send 3 mL of serum refrigerated in a plastic vial.

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days
	Ambient	7 days

CPT Code Information: 86038; 83516; 86235 x 5; 86256;

FRIFA
75628

Rifampin Level

Specimen Requirements: Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: 1. Allow serum to clot for 30 minutes. 2. Immediately centrifuge and aliquot 2 mL of serum into a plastic vial. 3. Send frozen.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	365 days

CPT Code Information: 80299

FAU3R
75631

Anti-U3 RNP Antibodies (Fibrillarin)

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Within 1 hour of collection, centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 0.3 mL Note: This volume does not allow for repeat testing.

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days
	Ambient	7 days

CPT Code Information: 86235

FAT1G
75632

Anti-TIF-1gamma Antibody

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Within 1 hour of collection, centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 0.5 mL Note: This volume does NOT allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days
	Ambient	7 days

CPT Code Information: 86235

FAS1A
75634

Anti-SAE1 Ab, IgG

Specimen Requirements: Collection Container/Tube: Serum gel or red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Within 1 hour of collection, centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 0.5 mL Note: This volume does NOT allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days
	Ambient	7 days

CPT Code Information: 83516

FLISD
75638

Lisdexamfetamine as Metabolite, Urine

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Container/Tube: Plastic preservative-free urine container Specimen Volume: 1 mL Collection Instructions: 1. Send 1 mL random urine specimen in a plastic preservative-free urine

container. 2. Ship refrigerate.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	180 days
	Frozen	180 days
	Ambient	7 days

CPT Code Information: 80324

ZW335
75641

Miscellaneous New York Blood Center

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FFTST
75642

Testosterone, Free and Weakly Bound, With Total Testosterone, LC/MS-MS

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: 1. Within one hour of collection, centrifuge and aliquot 2 mL serum into a plastic vial. 2. Ship refrigerated.

Specimen Minimum Volume: 1.4 mL (does not allow for repeat testing)

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Ambient	7 days

CPT Code Information: 84410

FAGES
75656

Androstanediol Glucuronide (Endocrine Sciences)

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerated. Specimen Stability Information: Refrigerated (preferred) 6 days/Ambient 6 days/Frozen 3 years

Specimen Minimum Volume: Serum: 0.5 mL, Note: This volume does not allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	6 days
	Ambient	6 days
	Frozen	

CPT Code Information: 82154

FABAA
75662

Anti-bestrophin Autoantibodies

Specimen Requirements: Submit only one of the following specimens: Serum: Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 5 mL serum refrigerated in a plastic vial. Plasma: Draw blood in a lavender-top (EDTA) tube(s). Spin down and send 5 mL EDTA plasma refrigerated in a plastic vial. Complete and submit with specimen: 1. Completed OHSU Ocular request form 2. Clinical history 3. Referring physician information (name & phone number) NOTE: Without this information, testing cannot be completed.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated	7 days

CPT Code Information: 84182

FADPF
75664

Adenosine Deaminase, Pleural Fluid

Specimen Requirements: Specimen Type: Pleural Fluid Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1.Collect pleural fluid in a leak proof container. 2. Centrifuge specimen at ambient temperature. 3. Transfer 0.5 mL into a plastic vial and freeze. 3. Ship frozen. Note: Specimen must remain frozen until received at performing lab.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Pleural Fluid	Frozen (preferred)	30 days
	Refrigerated	7 days

CPT Code Information: 84311

FADFL
75665

Adenosine Deaminase in Peritoneal Fluid

Specimen Requirements: Specimen Type: Peritoneal fluid (ascites, abdominal fluid, paracentesis fluid Collection Container/Tube: Leak-proof container Submission Container/Tube: Plastic vial Specimen volume: 0.5 mL Collection Instructions: 1. Centrifuge specimen at ambient temperature. 2. Transfer 0.5 mL into a plastic vial and freeze 3. Send frozen. Specimen must remain frozen until received at the performing lab. 4. Indicate source on requisition.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Peritoneal	Frozen (preferred)	30 days
	Refrigerated	7 days

CPT Code Information: 84311

FADCF
75666

Adenosine Deaminase in CSF

Specimen Requirements: Collection Container/Tube: Leak-proof container Submission Container/Tube: Sterile vial Specimen Volume: 0.5 mL Collection Instructions: 1. Centrifuge cerebrospinal fluid specimen at ambient temperature. 2. Transfer 0.5 mL fluid (supernatant) into a sterile vial and freeze. 3. Send frozen. Specimen must remain frozen until received at performing lab. 4. Indicate source on requisition.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	30 days
	Refrigerated	7 days
	Ambient	24 hours

CPT Code Information: 84311

FADDP
75667

Adenosine Deaminase, Pericardial Fluid

Specimen Requirements: Specimen Type: Pericardial fluid Collection Container/Tube: Leak-proof container Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Centrifuge pericardial fluid specimen at ambient temperature. 2. Transfer 0.5 mL of fluid (supernatant) into a plastic vial and freeze. 3. Send frozen. Specimen must remain frozen until received at performing lab. 4. Indicate source on requisition.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Frozen (preferred)	30 days
	Refrigerated	7 days

CPT Code Information: 84311

FRSVQ
75669

Respiratory Syncytial Virus (RSV) RNA, Qualitative Real-Time PCR

Specimen Requirements: Specimen Type: Bronchoalveolar lavage or bronchial wash

Container/Tube: Sterile container Specimen Volume: 2 mL Collection Instructions: Collect in a sterile leak-proof container (no media or preservative). Ship refrigerated. Note: Specimen type is required.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 87634

FGBP1
75670

Insulin-like Growth Factor-binding Protein-1 (IGFBP-1)

Specimen Requirements: Collection container/tube: 5 mL Red Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Acceptable: SST Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is acceptable. Spin down within one hour and send 0.5 mL of serum frozen in a plastic vial.

Specimen Minimum Volume: 0.1 mL Note: This volume does not permit repeat analysis.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	
	Refrigerated	48 hours

CPT Code Information: 83520

F11DX
75673

11-Desoxycortisol

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	
	Ambient	72 hours
	Refrigerated	72 hours

CPT Code Information: 82634

FHC18
75675

18-Hydroxycorticosterone, Serum

Specimen Requirements: Preferred: Red top Acceptable: SST Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Serum must be separated from cells within 45 minutes of venipuncture. Centrifuge and send 3 mL of serum frozen in a plastic vial.

Specimen Minimum Volume: 1 mL (NOTE: Minimum volume does not allow for repeat analysis.)

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Ambient	24 hours
	Refrigerated	24 hours

CPT Code Information: 82542

FCLPF
75676

Cathartic Laxatives Profile, Stool

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Specimen Type: Stool Container/Tube: Acid-washed or trace metal-free plastic container, MCL supply T656 Specimen Volume: 10 g Collection Instructions: Collect 10 g of stool with no preservative. Send specimen in an acid-washed or trace metal-free plastic container, MCL supply T656. Send specimen refrigerated.

Specimen Minimum Volume: 10 mL stool liquid or 10 g stool solid

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Refrigerated (preferred)	30 days
	Ambient	30 days
	Frozen	30 days

CPT Code Information: 83735; 84100;

FIFLC
75678

Immunofixation with Free Light Chains, Quantitative, Urine

Specimen Requirements: Container/Tube: Two plastic aliquot tubes Specimen Volume: 8 mL in 2 plastic aliquot tubes, each containing 4 mL Collection Instructions: 1. Collect urine for 24 hours (No preservative). 2. Refrigerate specimen during the 24-hour collection. 3. Mix the collection and then aliquot urine (4 mL per aliquot) into two plastic aliquot tubes 4. Collection volume and duration are required. 5. Send refrigerated.

Specimen Minimum Volume: 4 mL total, 2 vials each containing 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	21 days
	Frozen	180 days

CPT Code Information: 84156; 86335; 83521 x 2;

FLSDA
75680

LSD Trace Analysis, Urine

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Specimen Type: Urine Container/Tube: Plastic preservative-free urine container Specimen Volume: 1 mL Collection Instructions: Collect 1 mL random urine without preservative. Send specimen refrigerated in a plastic, preservative-free urine container.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Frozen	30 days

CPT Code Information: 80323

FASPG
75681

Aspergillus IgG Precipitins Panel

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 86331 x 6

FSILS
75690

Silicon, Serum

Specimen Requirements: ***Must submit one specimen per orders. Specimens cannot be shared between multiple orders.*** Supplies: NMS Acid Washed "Precleaned", 10 mL (T619) Collection Container/Tube: Royal blue top (no additive, metal-free)(serum gel/SST are not acceptable) Submission Container/Tube: Trace metal-free plastic vial Specimen Volume: 2 mL Serum Collection Instructions: 1. Promptly centrifuge and aliquot serum into a trace metal-free plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	21 days	Acid Washed Plastic (MML Supply T619)
	Ambient	14 days	Acid Washed Plastic (MML Supply T619)

	Frozen	14 days	Acid Washed Plastic (MML Supply T619)

CPT Code Information: 84285

FFMSS
75692

Maternal Serum Screening, Integrated, Specimen #1, PAPP-A, NT

Specimen Requirements: Specimen # 1 collection must occur between 10 weeks, 0 days and 13 weeks, 6 days gestation. If gestational age is based on Crown-Rump length (CRL), the specimen must be collected when the CRL is between 32.4 - 83.9 mm. Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. 3. Ship refrigerate. Note: Submit with order: Patient's date of birth, current weight, number of fetuses present, patient's race, if the patient was diabetic at the time of conception, if there is a known family history of neural tube defects, if the patient has had a previous pregnancy with a trisomy, if the patient is currently smoking, if the patient is taking valproic acid or carbamazepine (Tegretol), if this is a repeat sample, and the age of the egg donor if in vitro fertilization. In addition to the above: If an NT measurement is performed: the date of ultrasound, the CRL measurement, the nuchal translucency (NT) measurement and the name and certification number of the sonographer are required. NT must be measured when the CRL is between 38-83.9mm. The NT measurement must be performed by an ultrasonographer that is certified by the Fetal Medicine Foundation (FMF). OR If no NT measurement is performed: a due date or CRL measurement with the date of ultrasound is required. See the PATIENT HISTORY FOR MATERNAL SERUM TESTING form.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	365 days
	Ambient	72 hours

CPT Code Information: 84163

FBROM
75695

Bromine - Total, Blood

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Specimen Type: Whole blood Collection Container/Tube: Royal blue top (Trace metal-free EDTA) Specimen Volume: 2 mL Collection Instructions: 1. Do not use disinfectants containing iodine, eg, Betadine, during venipuncture. 2. Send whole blood specimen in original tube. 3.

Send refrigerated. Note: Avoid exposure to gadolinium or iodine-based contrast media for 96 hours prior to specimen collection.

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA - Metal Free (ERB)	Refrigerated (preferred)	30 days	METAL FREE
	Frozen	365 days	METAL FREE
	Ambient	30 days	METAL FREE

CPT Code Information: 82542

FC4AL
75726

C4 Level by RIA

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	28 days

CPT Code Information: 86160

FC3AR
75729

C3a Level By RIA

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	14 days

CPT Code Information: 86160

FKEMS
75730

Ketamine and Metabolite Screen, Plasma

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Specimen Type: Plasma Collection Container/Tube: Lavender-top or pink top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: 1. Draw blood in an EDTA (lavender top or pink top) tube(s). Plasma gel tube is not acceptable. 2. Centrifuge and send 3 mL of plasma refrigerated in a preservative-free plastic vial.

Specimen Minimum Volume: 0.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	14 days
	Frozen	270 days
	Ambient	14 days

CPT Code Information: 80307-Screen; 80357-Confirmation, if appropriate;

FEUCT
75738

Euglobulin Clot Lysis Time

Specimen Requirements: Specimen Type: Citrated plasma Collection Container/Type: Light-blue top (sodium citrate) Specimen Volume: 2 mL Collection Instructions: Collect blood in 3/2% sodium citrate light blue top tube. Centrifuge within 30 minutes after collection, freeze immediately. Send 2 mL platelet-poor plasma in plastic vial frozen. Note: 1. Prohibit exercise prior to drawing sample. 2. To avoid release of plasminogen activator, do not massage vein vigorously, pump fist excessively or leave tourniquet in place for a prolonged period.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	21 days

CPT Code Information: 85360

ZW333
75744

Miscellaneous Nationwide Children's Hospital

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FIXCF
75749

Immunofixation, CSF

Specimen Requirements: Specimen Type: CSF Container/Tube: sterile screw cap container Specimen Volume: 6 mL Collection Instructions: Collect 6 mL of spinal fluid (CSF) in a sterile screw cap container. Ship frozen.

Specimen Minimum Volume: 4.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	30 days
	Refrigerated	10 days
	Ambient	6 days

CPT Code Information: 86335

ZW334
75750

Miscellaneous Variantyx, Inc.

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FFTFT
75751

Testosterone, Free (Dialysis) and Total, MS

Specimen Requirements:

Specimen Minimum Volume: 0.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	21 days
	Ambient	7 days
	Frozen	

CPT Code Information: 84402; 84403 ;

FRT3S
75752

T3 Reverse, LC/MS/MS

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Allow blood to clot at room temperature for 30 minutes. 2. Within 24 hours of collection, centrifuge and aliquot serum

immediately into a plastic vial. 3. Send frozen.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 84482

FIERA
75754

IgE Receptor Antibody

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: 1. Immediately centrifuge and aliquot 1.5 mL serum into a plastic vial. 2. Send frozen

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	365 days
	Refrigerated	7 days
	Ambient	48 hours

CPT Code Information: 88184; 88185 x 2;

FHV7P
75755

Herpesvirus 7 (HHV-7) DNA, Quantitative Real-Time PCR

Specimen Requirements: Submit only 1 of the following specimens: Source is required Whole Blood Specimen Type: Whole Blood Container/Tube: Lavender-top (EDTA) Specimen Volume: 1 mL Collection Information: Draw blood in a lavender-top (EDTA) tube(s) and send 1 mL whole blood refrigerated (DO NOT FREEZE). Stability: Ambient 48 hours; Refrigerated 7 days Serum Specimen Type: Serum Container/Tube: Red-top Submission Container/Tube: 12x75 mm screw-capped vial Specimen Volume: 1 mL Collection Instructions: Draw blood in a plain red-top tube(s). Spin down and send 1 mL serum in a plastic, screw-capped vial. Send specimen refrigerated. Stability: Ambient 48 hours; Refrigerated 7 days; Frozen 30 days Plasma Collection Container/Tube: Lavender-top (EDTA) Submission Container/Tube: 12x75 mm screw-capped vial Specimen Volume: 1 mL Collection Instructions: Draw blood in a lavender-top (EDTA) tube(s). Spin down and transfer 1 mL EDTA plasma

into a plastic screw-capped vial. Send specimen refrigerated. Stability: Ambient 48 hours; Refrigerated 7 days; Frozen 30 days

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Ambient	48 hours

CPT Code Information: 87799

FHV8P
75756

Herpesvirus 8 (HHV-8) DNA, Quantitative Real-Time PCR

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole Blood Container/Tube: Lavender-top (EDTA) Specimen Volume: 1 mL Collection Instructions: Send 1 mL EDTA whole blood refrigerated. Frozen whole blood is not acceptable. Specimen Type: Serum Collection Container/Tube: Red-top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: 1. Centrifuge and aliquot 1 mL serum into a plastic vial. 2. Send refrigerated. Specimen Type: Plasma Collection Container/Tube: Lavender-top (EDTA) or PPT (white-top) tube Submission Container/Tube: Plastic vial Specimen Volume: 1 mL plasma Collection Instructions: 1. Centrifuge and aliquot 1 mL EDTA plasma into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	48 hours

CPT Code Information: 87799

FJCQP
75758

JC Polyoma Virus DNA, Quantitative Real-Time PCR, Serum/Plasma

Specimen Requirements: Collection Container/Tube: Lavender top (EDTA), yellow top (ACD-A), white top (PPT) tube Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Plasma Collection Instructions: 1. Centrifuge and aliquot plasma into a plastic vial. 2. Send frozen.

Specimen Minimum Volume: Plasma: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	30 days
	Refrigerated	7 days
	Ambient	48 hours

CPT Code Information: 87799

FCIC3
75772

Circulating Immune Complex, C3 fragments

Specimen Requirements: Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Allow complete clotting of red blood cells (up to 1 hour). 2. Within 30 minutes after clotting is complete, centrifuge and aliquot serum into a plastic vial. 3. Freeze immediately. 4. Send frozen Note: Critical frozen. Separate specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	30 days

CPT Code Information: 86332

FMITU
75773

Mitragynine (Qualitative), Urine

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Container/Tube: Plastic preservative-free urine container Specimen Volume: 2 mL Collection Instructions: 1. Collect 2 mL random urine in a plastic, preservative-free urine container. 2. Send refrigerated.

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Ambient	30 days
	Frozen	30 days

CPT Code Information: 80323

FCDSU
75775

Comprehensive Drug Screen, Umbilical Cord Tissue

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Specimen Type: Umbilical cord tissue Container/Tube: Plastic, preservative-free container Specimen Volume: 10 g Collection Instructions: 1. Collect at least 6 inches of umbilical cord (approximately the length of an adult hand). 2. Drain and discard any blood. 3. Rinse the exterior of the cord segment with normal saline or sterile water. 4. Pat the cord dry and place in a preservative-free plastic container for transport. 5. Ship refrigerated.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

CPT Code Information: 80307

FCDU1
75776

Opiates, Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

FCDU2
75777

Benzodiazepines, Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

FCDU3
75778

Acetyl Fentanyl, Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

FCDU4
75779

Novel Psychoactives, Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

FCDU5
75780

Amphetamines, Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

FCDU6
75781

Cocaine and Metabolites, Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

FCDU7
75782

Cannabinoids, Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

FCDU8
75783

Dextro/Levo Methorphan, Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

FCDU9
75784

Muscle Relaxants, Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

FCDUA
75785

Phencyclidine, Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

FCDUB
75786

Barbiturates, Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

FCDUD
75787

Zolpidem, Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

FMNPP
75811

Motor Neuropathy Panel

Specimen Requirements: Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: 1. As soon as possible or within 2 hours of specimen collection, centrifuge and aliquot 4 mL serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 82784 x 3; 83516 x 7; 84155; 84165; 86334;

ZW342
75816

Miscellaneous MDX Health Inc.

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must

be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FMPVP
75817

Mpox Virus DNA, Qualitative Real-Time PCR

Specimen Requirements: Specimen Type: Lesion swab Container/Tube: Viral Culture Media (VCM), Viral Transport Media (VTM), Universal Transport Media (UTM), or equivalent Specimen Volume: 1 Swab Collection Instructions: 1. Swab the pustule/lesion vigorously and place the swab in 3 mL Viral Culture Media (VCM), Viral Transport Media (VTM), Universal Transport Media (UTM), or equivalent. 2. Include the following required information with the specimen: Patient race, ethnicity, specimen type (source), and anatomic location specimen was collected. 3. Send frozen. Additional Information: Each individual specimen submitted should be transported in its own sealed bag. Multiple specimens collected on a single patient should be submitted separately.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Frozen (preferred)	30 days
	Refrigerated	7 days

CPT Code Information: 87593 x 2

FBCQ
75822

Benzodiazepine Confirmation, Urine (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For further information see FSHPU/Sedative Hypnotic Panel, Urine

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80346; G0480 (if appropriate); ;

FHTGF
75825

Human Transforming Growth Factor beta 1 (TGF-b1)

Specimen Requirements:

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	14 days

CPT Code Information: 83520

FCXCL
75827

CXCL9

Specimen Requirements: Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Plasma Collection Instructions: 1.Within 8 hours of collection, centrifuge and aliquot plasma into a plastic vial. Freeze immediately. 2.Send frozen.

Specimen Minimum Volume: Plasma: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	180 days

CPT Code Information: 83520

FHCCF
75831

THC Confirmation, MS, SP

Specimen Requirements: Submit only 1 of the following specimens: Serum: Draw blood in a plain, red-top tube(s), serum gel tube is not acceptable. Spin down and send 5mL of serum refrigerated in plastic vial. Plasma: Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 5 mL sodium heparin plasma refrigerated in plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days

CPT Code Information: 80349; G0480 (if appropriate);

FMARX
75832

THC, MS, WB/SP Rfx (Non-Orderable)

Specimen Requirements: Only orderable as a reflex from FMARI

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

FHI24
75835

Histamine, 24-Hour Urine

Specimen Requirements: Patient Preparation: Avoid direct sunlight. Patient should refrain from taking allergy causing drugs, antihistamines, oral corticosteroids, and substances which block H2 receptors for at least 24 hours prior to specimen collection. Specimen Type: Urine Submission Container/Tube: Plastic, 10-mL tube (T068) Specimen Volume: 4 mL Collection Instructions: 1. Collect urine for 24 hours, with 10 mL 6N HCL preservative. 2. Avoid direct sunlight during the 24-hour collection. 3. Send specimen refrigerated in the plastic, 10-mL urine tube (T068). 4. Collection volume and duration are required.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	48 hours

CPT Code Information: 83088

FBCFS
75839

Barbiturates Confirmation, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: FDA1S / Drugs of Abuse (10 panel) and Alcohol Screen, Serum FD10S / Drugs of Abuse Screen, Serum

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	30 days

CPT Code Information: 80345; G0480 (if appropriate);

FCDUE
75840

Gabapentin, Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

FCDX1
75841

Gabapentin Confirmation (Qualitative), Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

CPT Code Information: 80171

FCDX2
75842

Mitragynine Confirmation (Qualitative), Umbilical Cord Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

CPT Code Information: 80375

FCDX3
75843

Xylazine Confirmation (Qualitative), Umbilical Cord, Tissue (Non-Orderable)

Specimen Requirements: Only orderable as a profile. For more information see FCDSU / Comprehensive Drug Screen, Umbilical Cord Tissue.

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	7 days
	Frozen	14 days

CPT Code Information: 80375

ZW346
75850

Miscellaneous Cleveland Clinic

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FA13Q
75851

Factor 13, Qualitative, with Reflex to Factor 13 1:1 Mix

Specimen Requirements: Collection Container/Tube: Light-blue top (3.2% sodium citrate) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Platelet-poor plasma Collection Instructions: 1. Centrifuge immediately and aliquot 2 mL platelet-poor plasma in a plastic vial. 2. Send frozen. Additional Information: Critical frozen. Separate specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: Platelet-poor plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85291-Factor 13, Qualitative; 85291-Factor 13, 1:1 Mix (if appropriate);

FA13R
75852

Factor 13 1:1 Mix (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information, see FA13Q / Factor 13, Qualitative, with Reflex to Factor 13 1:1 Mix

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85291

FCMEB
75880

Carbon Monoxide Exposure, Blood

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Container/Tube: Lavender top (EDTA) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Send refrigerated.

Specimen Minimum Volume: 1.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	28 days
	Ambient	28 days

CPT Code Information: 82375

FAMBS
75881

Amphotericin B Susceptibility Testing

Specimen Requirements: Complete and submit with specimen: Fungus Testing Lab Request form. Specimen Type: Organism Supplies: Infectious Container, Large (T146) Container/Tube: Agar slant or other appropriate media Specimen Volume: Isolate Collection Instructions: 1. Organism must be in pure culture, actively growing. 2. Provide the name of organism/species, source, and collection date with the specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 87999 - Unlisted Microbiology Procedure (Refer to patient report to apply the appropriate CPT code in place of this unlisted CPT code based on specimen organism.); 87188 - mould-MIC microdilution or agar dilution (if appropriate); 87186 - yeast-MIC microdilution or agar dilution (if appropriate);

FITZS
75882

Itraconazole Susceptibility Testing

Specimen Requirements: Container/Tube: Agar slant or other appropriate media Specimen Volume: Organism in pure culture Complete and submit with specimen: 1. Fungus Testing Lab request form Collection Instructions: 1. Organism must be in pure culture, actively growing. 2. Place specimen in a large infectious container (T146) and label as etiologic agent/infectious substance.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 87999-Unlisted Microbiology Procedure (Refer to patient report to apply the appropriate CPT code in place of this unlisted CPT code based on specimen organism.); 87188 - mould - MIC microdilution or agar dilution (if appropriate); 87186 - yeast - MIC microdilution or agar dilution (if appropriate);

FCFS
75883

Caspofungin Susceptibility Testing

Specimen Requirements: Container/Tube: Agar slant or other appropriate media Specimen Volume: Organism in pure culture Complete and submit with specimen: 1. Fungus Testing Lab request form Collection Instructions: 1. Organism must be in pure culture, actively growing. 2. Place specimen in a large infectious container (T146) and label as etiologic agent/infectious substance.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 87999-Unlisted Microbiology Procedure (Refer to patient report to apply the appropriate CPT code in place of this unlisted CPT code based on specimen organism.); 87188 - mould - MIC microdilution or agar dilution (if appropriate); 87186 - yeast - MIC microdilution or agar dilution (if appropriate);

FLUCS
75885

Fluconazole (Diflucan) Susceptibility Testing

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 87999 - Unlisted Microbiology Procedure (Refer to patient report to apply the appropriate CPT code in place of this unlisted CPT code based on specimen source.); 87188 - mould - MIC microdilution or agar dilution (if appropriate); 87186 - yeast - MIC microdilution or agar dilution (if appropriate);

FISST
75887

Isavuconazole Susceptibility Testing

Specimen Requirements: Container/Tube: Agar slant or other appropriate media Specimen volume: Organism in pure culture Complete and submit with specimen: 1.Fungus Testing Lab request form Collection Instructions: 1. Organism must be in pure culture, actively growing. 2. Place specimen in a large infectious container (T146) and label as etiologic agent/infectious substance.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 87999-Unlisted Microbiology Procedure (Refer to patient report to apply the appropriate CPT code in place of this unlisted CPT code based on specimen organism.); 87188 x 4 for mould MIC microdilution or agar dilution (if appropriate); 87186 x 4 for yeast MIC microdilution or agar dilution (if appropriate);

FVOST
75888

Voriconazole Susceptibility Testing

Specimen Requirements: Container/Tube: Agar slant or other appropriate media Specimen volume: Organism in pure culture Complete and submit with specimen: 1.Fungus Testing Lab request form Collection Instructions: 1. Organism must be in pure culture, actively growing. 2. Place specimen in a large infectious container (T146) and label as etiologic agent/infectious substance.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 87999-Unlisted Microbiology Procedure (Refer to patient report to apply

the appropriate CPT code in place of this unlisted CPT code based on specimen organism.); 87188 x 4 for mould MIC microdilution or agar dilution (if appropriate); 87186 x 4 for yeast MIC microdilution or agar dilution (if appropriate);

FPPOS 75889 Posaconazole Susceptibility Testing

Specimen Requirements: Container/Tube: Agar slant or other appropriate media Specimen Volume: Organism in pure culture Complete and submit with specimen: 1. Fungus Test Lab Request Form Collection Instructions: 1. Organism must be in pure culture, actively growing. 2. Place specimen in a large infectious container (T146) and label as etiologic agent/infectious substance.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 87999 - Unlisted Microbiology Procedure (Refer to patient report to apply the appropriate CPT code in place of this unlisted CPT code based on specimen organism.); 87188 - mould - MIC microdilution or agar dilution (if appropriate); 87186 - yeast - MIC microdilution or agar dilution (if appropriate);

FSULU 75890 Thiosulfate, Urine

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Container/Tube: Plastic preservative-free urine container Specimen Volume: 4 mL Collection Instructions: 1. Collect 4 mL random urine specimen in a plastic preservative-free urine container. 2. Send refrigerated.

Specimen Minimum Volume: 1.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Frozen	14 days

CPT Code Information: 82542; 82570; 81002 (if appropriate);

FCPEU 75894 C-Peptide, 24-Hour Urine

Specimen Requirements: Patient Preparation: It is recommended to ask all patients who may be indicated for this test about biotin supplementation. Patients should be cautioned to stop biotin

consumption at least 72 hours prior to specimen collection. Collection Container/Tube: Clean, plastic 24-hour urine collection container. Submission Container/Tube: Plastic urine container Specimen Volume: 10 mL Collection Instructions: 1. Instruct the patient to void at 8 a.m. and discard the specimen. 2. Collect all urine including the final specimen voided at the end of the 24-hour collection period (ie, 8 a.m. the next morning) in a 24-hour urine collection container. pH should be between 4 and 7. 3. Refrigerate specimen during the 24-hour collection. 4. Aliquot and send 10 mL urine in a plastic urine container frozen. 5. 24-Hour collection volume is required.

Specimen Minimum Volume: 1 mL; Note: This volume does not allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time
Urine 24hr	Frozen (preferred)	14 days
	Refrigerated	14 days

CPT Code Information: 84681

FGHTP
75898

Ghrelin Total (Plasma)

Specimen Requirements:

Specimen Minimum Volume: Plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
GI Plasma	Frozen	180 days

CPT Code Information: 83519

FPDPG
75900

Prostaglandin D2 (PGD2)

Specimen Requirements: Patient preparation: Patient should not be on aspirin, indomethacin, or anti-inflammatory medications, if possible, for at least 48 hours prior to collection of specimen. Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Serum Collection Instructions: 1. Centrifuge as soon as possible, aliquot 3 mL of serum into a plastic vial. 2.Freeze specimen immediately after separation. 3. Send frozen.

Specimen Minimum Volume: Serum:1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	60 days

CPT Code Information: 84150

FPCEL
75901

Elastase, Pancreatic, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 10 to 12 hours, recommended 2. Medications that affect pancreatic activity should be discontinued, if possible, for at least 48 hours prior to specimen collection. Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL serum Collection Instructions: 1. As soon as possible after collection, centrifuge and aliquot 3 mL of serum into a plastic vial. 2. Freeze immediately. 3. Send frozen.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	365 days
	Refrigerated	7 days
	Ambient	72 hours

CPT Code Information: 83520

FPROS
75902

Prostaglandin D2 (PG D2), Random Urine

Specimen Requirements: Patient Preparation: Patient should not be on aspirin, indomethacin, or anti-inflammatory medications, if possible, for at least 48 hours prior to collection of specimen. Submission Container/Tube: Plastic vial Specimen Volume: 10 mL Collection Instructions: 1. Collect 10 mL random urine (24-hour urine collection is not acceptable) 2. No preservative. 2. Freeze immediately and send specimen frozen in a plastic vial. 3. Specimen must remain frozen prior to and during shipping.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen	60 days

CPT Code Information: 84150

FAMBT
75904

Amyloid Beta-Protein

Specimen Requirements: Collection Container/Tube: Lavender (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: 1. 3 mL of EDTA plasma should be collected and separated as soon as possible. 2. Freeze EDTA plasma immediately after separation. 3. Ship frozen

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	30 days

CPT Code Information: 83519

FNEU2
75905

Neurotensin

Specimen Requirements: Patient preparation: 1. Fasting: 10 to 12 hours 2. Patient should not be on any antacid medication or medications that affect gastroentero-intestinal function, if possible, for at least 48 hours prior to collection. Supplies: Z-Tube Preservative Inter Science Institute (T701) Collection Container/Tube: Z-tube Submission Container/Tube: Plastic vial Specimen Volume: 3 mL plasma Collection Instructions: 1. Draw 10 mL of blood directly into special Z-tube 2. As soon as possible, centrifuge and aliquot plasma into a plastic vial. 3. Freeze immediately after separation. 4. Ship frozen.

Specimen Minimum Volume: Plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Z-Tube Plasma	Frozen	180 days

CPT Code Information: 83519

FSOM1
75906

Somatostatin (Somatotropin Release-Inhibiting Factor, SRIF)

Specimen Requirements: Patient Preparation: 1. Fasting: 10 to 12 hours 2. Patient should not be on any medications that affect insulin secretion or intestinal motility, if possible, for at least 48 hours prior to collection. Supplies: GI Preservative (T125) Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: GI preservative tube Submission Container/Tube: Plastic vial Specimen Volume: 3 mL plasma Collection Instructions: 1. Centrifuge as soon as possible and aliquot 3 mL of plasma into a plastic vial. 2. Freeze plasma immediately after separation 3. Send frozen.

Specimen Minimum Volume: Plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	180 days
	Refrigerated	7 days

CPT Code Information: 84307

FPAN2
75907

Pancreastatin, Plasma

Specimen Requirements: Patient Preparation: 1. Fasting: 10 hours, recommended; water, but no other liquid, may be taken as needed 2. Patient should not be on any medications that may influence insulin levels, if possible, for at least 48 hours prior to collection. Collection Container/Tube: Z tube (T701) Submission Container/Tube: Plastic vial Specimen Volume: 3 mL plasma Collection Instructions: 1. Draw 10 mL of blood in a pre-chilled Z-tube. 2. Immediately after collection, centrifuge in a refrigerated centrifuge and aliquot 3 mL of plasma into a plastic vial. 3. Freeze immediately. 4. Send frozen.

Specimen Minimum Volume: Plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Z-Tube Plasma	Frozen	60 days

CPT Code Information: 83519

FIN1A
75908

Interleukin 1-Alpha

Specimen Requirements: Patient preparation: Patient should not be on any corticosteroids, anti-inflammatory medications, or pain killers, if possible, for at least 48 hours prior to specimen collection. Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic

vial Specimen Volume: 3 mL Serum Collection Instructions: 1. Centrifuge and aliquot 3 mL of serum into a plastic vial. 2. Send frozen.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	30 days

CPT Code Information: 83520

FGHRH
75910

Growth Hormone-Releasing Hormone (GH-RH, also known as GHRF or GRF)

Specimen Requirements:

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	180 days

CPT Code Information: 83520

FANG1
75911

Angiotensin I, Plasma

Specimen Requirements: Patient preparation: Patient should be on a normal sodium diet, 110 mEq of sodium. Patient should be in a recumbent posture for at least 30 minutes prior to collection of specimen. Diuretics, mineralocorticoids, glucocorticoids, estrogens, oral contraceptives, and ACTH medications and sodium, potassium, and posture all affect Angiotensin levels. Specimen Type: Plasma Collection Container/Tube: EDTA Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: 1. Draw blood in a lavender-top (EDTA) tube(s) 2. Centrifuge and aliquot 3 mL of plasma into a plastic vial. 3. Send frozen.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	30 days

CPT Code Information: 83520

FENDI
75913

Endothelin I

Specimen Requirements: Patient Preparation: Patient should NOT be on any ACTH, Corticosteroids, or hypertension medications, if possible, for at least 48 hours prior to collection of specimen. Submit only one of the following: Specimen Type: Serum Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: 12x75 mm screw capped vial Specimen Volume: 3 mL Collection Instructions: 1. Draw blood in a plain, red-top or serum-gel tube(s). 2. Centrifuge and immediately aliquot 3 mL of serum into a plastic vial. 3. Send frozen. Specimen Type: Plasma Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: 12x75 mm screw capped vial Specimen Volume: 3 mL Collection Instructions: 1. Draw blood in a lavender top (EDTA) tube(s). 2. Centrifuge and immediately aliquot 3 mL plasma into a plastic vial. 3. Send frozen.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Frozen (preferred)	180 days
	Refrigerated	7 days

CPT Code Information: 83520

FCCK1
75914

Cholecystokinin (CCK)

Specimen Requirements: Patient Preparation: 1. Fasting: 10 to 12 hours 2. Antacid medications and medications that affect intestinal motility should be discontinued, if possible, for at least 48 hours prior to collection of specimen. Supplies: GI Preservative Tube (T125) Collection Container/Tube: Special tube containing GI preservative Submission Container/Tube: Plastic vial Specimen Volume: 3 mL GI plasma Collection Instructions: 1. Collect 10 mL blood in special GI preservative tube. 2. Centrifuge immediately and aliquot 3 mL plasma into a plastic vial. 3. Freeze immediately and ship frozen.

Specimen Minimum Volume: GI plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
GI Plasma	Frozen	180 days

CPT Code Information: 83519

FGNDR
75915

Gonadotropin Releasing Hormone (Gn-RH, Luteinizing Hormone-Releasing Hormone LH-RH)

Specimen Requirements: Patient Preparation: Patient should not be on any steroid, ACTH, gonadotropin, or estrogen medications, if possible, for at 48 hours prior to collection of specimen. Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Serum Collection Instructions: 1. Centrifuge as soon as possible and aliquot 3 mL serum into a plastic vial. 2. Freeze specimen immediately after separation. 3. Send frozen.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	180 days
	Refrigerated	7 days

CPT Code Information: 83727

FPEPI
75916

Pepsinogen I (PG I)

Specimen Requirements: Patient preparation: 1. Fasting: 10 to 12 hours, recommended 2. Antacids or other medications affecting stomach acidity or gastrointestinal motility should be discontinued, if possible, for at least 48 hours prior to collection. Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL serum Collection Instructions: 1. Centrifuge and aliquot 3 mL serum into a plastic vial. 2. Send frozen.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 83520

FFTSI
75917

Thyroid-stimulating Immunoglobulin (TSI)

Specimen Requirements: Collection Container/Tube: Preferred: Red-top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: 1. Within 2 hours of collection, centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum: 0.3 mL Note: This volume does not allow for repeat testing

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 84445

FFIG2
75924

IGF-2

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.3 mL; Note: Minimum volume does not allow for repeat analysis.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Ambient	14 days
	Refrigerated	14 days

CPT Code Information: 83520

FCICP
75925

Circulating Immune Complex Panel

Specimen Requirements: Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: 1. Draw blood in plain, red-top tube(s) or serum gel tube(s). 2. Allow complete clotting of red blood cells (up to 1 hour)

3. Within 30 minutes of clotting completion, centrifuge and aliquot 2 mL into a plastic vial. 3. Freeze immediately. 4. Ship frozen.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86332 x 2

FCATB
75927

Carotene, Beta

Specimen Requirements:

Specimen Minimum Volume: 0.4 mL Note: This volume does not allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Ambient (preferred)	14 days	LIGHT PROTECTED
	Frozen	14 days	LIGHT PROTECTED
	Refrigerated	14 days	LIGHT PROTECTED

CPT Code Information: 82380

FLLYS
75928

Limulus Amebocyte Lysate, Endotoxin

Specimen Requirements: Specimen Type: Aqueous solutions Container/Tube: Nonpyrogenic, plastic, leak-proof container Specimen Volume: 5 mL Collection Instructions: 1.Collect 5 mL aqueous solutions in a nonpyrogenic, plastic, leak-proof container used in patient management. 2. Send frozen.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Frozen	30 days

CPT Code Information: 87999

FNNAT
75929

Neonatal Alloimmune Thrombocytopenia (NAIT)-Serial Monitoring Maternal only

Specimen Requirements: Specimen Type: Serum Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Collection Instruction: 1.Centrifuge and aliquot 5 mL serum into a plastic vial. 2.Send refrigerated.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	365 days

CPT Code Information: 86022; 86023 x 2;

FIGF1
75932

IGF-1, LC/MS

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collections Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	60 days

CPT Code Information: 84305

FFBTT
75934

Testosterone, Free, Bioavailable, and Total, MS

Specimen Requirements: Caution: Administration of STRENSIQ may interfere in certain assays and may falsely elevate values. For patients receiving STRENSIQ, consideration should be given to using alternate methods. Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2.8 mL Serum Collections Instructions: 1. Allow blood to clot at room temperature. 2. Centrifuge and aliquot 2.8 mL of serum into a plastic vial. 3. Send refrigerate.

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 82040; 84270; 84403;

FINAB
75935

Insulin Autoantibodies (IAA)

Specimen Requirements: Patient preparation: No radioactive isotopes should be administered 24 hours prior to venipuncture. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Within 24 hours of collection, centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Freeze immediately after separation and send frozen.

Specimen Minimum Volume: 0.2 mL Note: This volume does not permit repeat analysis.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	
	Refrigerated	72 hours

CPT Code Information: 86337

FIAAB
75936

IA2 Autoantibodies

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. With 24 hours of collection, centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Freeze immediately after separation and send frozen.

Specimen Minimum Volume: 0.5 mL (Note: Minimum volume does not allow for repeat analysis)

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	107 days
	Ambient	72 hours
	Refrigerated	72 hours

CPT Code Information: 86341

FDAIP
75937

Diabetes Autoimmune Profile

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/tube: Plastic vial Specimen Volume: 2.5 mL Collection Instructions: 1. Within 24 hours of collection, centrifuge and aliquot 2.5 mL of serum into a plastic vial. 2. Freeze within 24 hours and send frozen.

Specimen Minimum Volume: 1 mL (Note: This volume does not allow for repeat testing)

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	7 days

CPT Code Information: 86337; 86341x3;

FDISU
75938

Diuretic Profile, Urine

Specimen Requirements: Specimen Type: Urine Container/Tube: Plastic preservative-free urine container Specimen Volume: 10 mL Collection Instructions: 1. Collect 10 mL random urine without preservative. 2. Send specimen refrigerated.

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 80377

FIA2A
75939

IA-2 Antibody

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 1 mL Collection Instruction: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send ambient.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Ambient (preferred)	7 days
	Frozen	30 days
	Refrigerated	7 days

CPT Code Information: 86341

FLXPN
75950

Loxapine, Plasma

Specimen Requirements: Must submit one specimen per order. Specimens cannot be shared between multiple orders. Collection Container/Tube: Lavender or pink top (EDTA) Submission Container/Tube: Plastic screw-capped vial Specimen Volume: 1 mL plasma Collection Instructions: 1. Promptly centrifuge and aliquot 1 mL plasma into a plastic screw-capped vial. 2. Send refrigerated. Specimen Stability Information: Refrigerated (preferred) 30 days/Ambient 30 days/Frozen 15 months

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	30 days
	Ambient	30 days
	Frozen	

CPT Code Information: 80342

FPA15
75952

Pneumococcal Antibody Panel - PCV15 (15-serotype)

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Allow blood to clot for 30 to 60 minutes. 2. Centrifuge at ambient temperature, 1000 x g for 15 minutes. 3. Aliquot 1 mL of serum into a plastic vial. 4. Send refrigerated.

Specimen Minimum Volume: Serum: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	42 days
	Ambient	42 days
	Frozen	

CPT Code Information: 86581

FPIBD
75953

PROMETHEUS IBD Precis

Specimen Requirements: Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: 1. Centrifuge and aliquot 2 mL serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 81599

FHEX
75954

Hexagonal Phase Phospholipid (HPP)

Specimen Requirements: Patient Preparation: Ideally, the patient should not be on anticoagulant therapy. Avoid warfarin (Coumadin) therapy for two weeks prior to the test and heparin, direct Xa, and thrombin inhibitor therapies for about three days prior to testing. Do not draw from an arm with a heparin lock or heparinized catheter. Specimen Type: Citrated plasma Collection Container/Tube: Light-blue top (3.2% sodium citrate) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Plasma Collection Instructions: 1. Draw blood in a blue-top tube containing 3.2% buffered sodium citrate. 2. Mix immediately by gentle inversion at least six times to ensure adequate mixing of the anticoagulant with the

blood. 3. Centrifuge for 10 minutes and remove 2/3 of the plasma using a plastic transfer pipette, being careful not to disturb the cells. 4. Transfer to a plastic transport tube, cap, and centrifuge again for 10 minutes. 5. Use a second plastic pipette to remove the plasma, staying clear of the platelets at the bottom of the tube. 6. Transfer the plasma into a plastic vial and freeze immediately. 7. Send frozen. Note: Critical frozen. Separate specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: Plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	28 days

CPT Code Information: 85598

FHEXN
75955

Comment (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see FHEX / Hexagonal Phase Phospholipid (HPP).

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	28 days

FHEXP
75956

Comment (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see FHEX / Hexagonal Phase Phospholipid (HPP).

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	28 days

FPT12
75957

Prothrombin Fragment 1+2

Specimen Requirements: Collection Container/Tube: Light-blue top (3.2% sodium citrate) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Plasma Collection Instructions: 1. Do not draw from an arm with a heparin lock or heparinized catheter. 2. Draw blood in a blue-top tube containing 3.2% buffered sodium citrate. 3. Mix immediately by gently inverting at least 6 times. 4. Centrifuge and aliquot 1 mL citrated plasma into a plastic vial. 5. Send frozen. Critical frozen. Separate specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: Plasma: 0.5 mL; Note: This volume does not allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	28 days

CPT Code Information: 83520

FATCX
75958

Thrombin-Antithrombin Complex

Specimen Requirements: Collection Container/Tube: Blue top (3.2% buffered sodium citrate) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Plasma Collection Instructions: 1. Do not draw from an arm with a heparin lock or heparinized catheter. 2. Draw blood in a blue-top tube containing 3.2% buffered sodium citrate. 3. Mix immediately by gently inverting at least 6 times. 4. Centrifuge, aliquot plasma into a plastic vial, being careful not to disturb the cells, and freeze immediately. 5. Send frozen. Note: Critical frozen. Separate specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: Plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	28 days

CPT Code Information: 83520

FH7AB
75964

Herpesvirus 7 Antibody Panel (IgG, IgM), IFA

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Centrifuge and aliquot 1 mL serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86790 x 2

FSCBA
75966

Synthetic Cannabinoid Metabolites Screen-Expanded, Urine

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Container/Tube: Plastic, preservative-free urine container Specimen Volume: 3 mL Collection Instructions: 1. Collect 3 mL random urine specimen without preservative. 2. Send refrigerated in a plastic preservative-free urine container.

Specimen Minimum Volume: 1.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Ambient	30 days
	Frozen	30 days

CPT Code Information: 80307

FSCBB
75967

Synthetic Cannabinoid Metabolites Confirmation (Qualitative)-Expanded, Urine (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see FSCBA / Synthetic Cannabinoid Metabolites Screen-Expanded, Urine

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Ambient	30 days
	Frozen	30 days

CPT Code Information: 80352

FGADA
75968

Glutamic Acid Decarboxylase (GAD) Autoantibody

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot 0.5 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: Serum: 0.4 mL Note: This volume does not allow for repeat testing.

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 86341

FZNT8
75969

ZnT8 Antibodies

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Within 45 minutes of collection, centrifuge and aliquot serum into a plastic vial. 2. Send frozen.

Specimen Minimum Volume: Serum: 0.2 mL; Note: This volume does not allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	64 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 86341

FBORO
75972

Boron, Serum

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Supplies: NMS Acid Washed "Precleaned", 10 mL (T619) Collection Container/Tube: Royal blue top (no additive, metal-free)(serum gel/SST are not acceptable) Submission Container/Tube: Trace metal-free plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Centrifuge and aliquot serum into a trace metal-free plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	30 days	Acid Washed Plastic (MML Supply T619)
	Ambient	30 days	Acid Washed Plastic (MML Supply T619)
	Frozen	30 days	Acid Washed Plastic (MML Supply T619)

CPT Code Information: 83018

ZW299
76271

Miscellaneous Childrens Hospital Los Angeles

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

TTBS
80065

Testosterone, Total and Bioavailable, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	60 days

CPT Code Information: 84403; 84410;

LENT
80066

Enterovirus, Molecular Detection, PCR, Varies

Specimen Requirements: Submit a raw clinical sample (not a culture isolate) for enterovirus testing. Submit only 1 of the following specimens: Specimen Type: Body fluid Sources: Pericardial, peritoneal Container/Tube: Sterile container Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 0.5 mL Collection Instructions: 1. Submit specimen from collection vial 2. 2. Do not centrifuge. Specimen Type: Swab Sources: Dermal, eye, rectal, genital, nasopharyngeal, oropharyngeal, throat, nasal, or urethral Supplies: -Culturette (BBL Culture Swab) (T092) -E-Swab (T853) -M4-RT (T605) Container/Tube: Multimicrobe media (M4-RT, M4, M5, Bartels, or Jiangsu) and E-Swab or Culturette Specimen Volume: Entire specimen Collection Instructions: 1. Rectal swab must have no visible fecal matter 2. Place swab back into multimicrobe media. Specimen Type: Respiratory Sources: Bronchial washing, bronchoalveolar lavage, nasopharyngeal aspirate or washing, pleural fluid, sputum, or tracheal aspirate Container/Tube: Sterile container Specimen Volume: 1.5 mL Collection Instructions: Do not centrifuge.

Specimen Minimum Volume: Body and respiratory fluids: 0.5 mL; Spinal fluid: 0.3 mL; Swab: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87498

COU
80083

Cobalt, 24 Hour, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 0.5 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83018

COS
80084

Cobalt, Serum

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Metal Free Specimen Vial (T173) Collection Container/Tube: Plain, royal blue-top Vacutainer plastic trace element blood collection tube Submission Container/Tube: 7-mL Mayo metal-free, screw-capped, polypropylene vial Specimen Volume: 1.6 mL Serum Collection Instructions: See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	28 days	METAL FREE
	Ambient	28 days	METAL FREE
	Frozen	28 days	METAL FREE

CPT Code Information: 83018

TMP
80146

Trimethoprim, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (gel tubes/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Serum for a peak level should be collected at least 60 minutes after a dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

EPO
80173

Erythropoietin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL serum Collection Instructions: 1. Morning collection, 7:30 a.m. to 12 p.m. is preferred due to diurnal variation. For more information see Cautions. 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	7 days

CPT Code Information: 82668

SCL70
80178

Scl 70 Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86235

JO1
80179

Jo 1 Antibodies, IgG, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86235

ADNAS
80204

Anti-DNase B Titer, Serum

Specimen Requirements: Patient Preparation: Fasting: 8 hours, preferred but not required Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 86215

ASO
80205

Antistrep-O Titer, Serum

Specimen Requirements: Patient Preparation: Fasting: 8 hours, preferred but not required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collections Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 86060

GIAR
80231

Giardia Antigen, Feces

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Preserved feces Supplies: -Formalin 10% Buffered Neutral 15 mL (T466) -Stool Collection Kit, Random (T635) Container/Tube: Preferred: Fecal container with 10% buffered formalin preservative Acceptable: SAF (sodium acetate formalin) Specimen Volume: 5 grams Specimen Stability Information: Ambient (preferred) 60 days Acceptable: Specimen Type: Unpreserved feces Supplies: -Stool container, Small (Random), 4 oz (T288) -Stool Collection Kit, Random (T635) Container/Tube: Fecal container Specimen Volume: 5 grams Specimen Stability Information: Frozen 60 days

Specimen Minimum Volume: 2 grams

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Varies	

CPT Code Information: 87329

CTBID
80278

Culture Referred for Identification, Mycobacterium and Nocardia, Varies

Specimen Requirements: Specimen Type: Mycobacterium species or aerobic actinomycetes organism in pure culture Supplies: Infectious Container, Large (T146) Container/Tube: Middlebrook (7H10 or 7H11) or Lowenstein-Jensen medium slant or in broth (eg, Mycobacteria Growth Indicator Tube [7H9] broth) Specimen Volume: Solid media: Visible growth of isolate Isolate in broth media: > or =3 mL Collection Instructions: Organism must be in pure culture, actively growing. Do not submit mixed cultures. Additional Information: A minimum volume of 3 mL is recommended to perform all initial testing, this may include: stains, sub-culture media, nucleic acid probes, and any additional testing that may be required to determine the identification. If the broth sample volume is less than 3 mL, initial testing may be limited, and increased turnaround time is likely.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: Culture Referred for Identification, Mycobacterium; 87118-Identification of mycobacteria; 87158-Identification of mycobacteria by other methods (if appropriate); 87118 -Id MALDI-TOF Mass Spec AFB (if appropriate); 87153-Mycobacteria Identification by Sequencing (if appropriate); 87150-Id, Mtb Speciation, PCR (if appropriate); 87150- Id, MTB complex Rapid PCR (if appropriate);

MMAS
80289

Methylmalonic Acid, Quantitative, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume:1.5 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	48 days
	Ambient	48 days
	Frozen	48 days

CPT Code Information: 83921

MMAU
80290

Methylmalonic Acid, Quantitative, Urine

Specimen Requirements: Patient Preparation: Fasting: 8 hours, required Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 4 mL Collection Instructions: 1. After fasting at least 8 hours overnight, patient should void first-morning urine as normal. Do not collect. 2. Patient should continue to fast and then collect the next (second morning) urine voided.

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	28 days
	Refrigerated	28 days
	Ambient	21 days

CPT Code Information: 83921

PFN
80295

Propafenone, Serum

Specimen Requirements: Patient Preparation: Specimens should only be collected after patient has been receiving propafenone for at least 3 days. Trough concentrations should be collected just before administration of the next dose. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Draw blood immediately before next scheduled dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

CRYPS
80335

Cryptosporidium Antigen, Feces

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Preserved feces Supplies: -Formalin 10% Buffered Neutral 15 mL (T466) -Stool Collection Kit, Random (T635) Container/Tube: Preferred: Stool container with 10% buffered formalin preservative Acceptable: SAF (sodium acetate formalin) Specimen Volume: 5 grams Specimen Stability Information: Ambient (preferred) 60 days Specimen Type: Unpreserved feces Supplies: -Stool container, Small (Random), 4 oz (T288) -Stool Collection Kit, Random (T635) Container/Tube: Stool container Specimen Volume: 5 grams Specimen Stability Information: Frozen 60 days

Specimen Minimum Volume: 1 gram

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Varies	

CPT Code Information: 87328

GAL1P
80337

Galactose-1-Phosphate, Erythrocytes

Specimen Requirements: Multiple whole blood tests for galactosemia can be performed on 1 specimen. Prioritize order of testing when submitting specimens. For a list of tests that can be ordered together, see Galactosemia-Related Test List. Patient Preparation: Specimens collected following a meal can exhibit postprandial elevations. For infants, collect a specimen immediately prior to feeding to avoid this. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	72 hours

CPT Code Information: 84378

PSF
80338

Protein S Antigen, Free, Plasma (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85306

HALO
80339

Haloperidol, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Draw blood immediately before next scheduled dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80173

GALTP
80341

Galactose-1-Phosphate Uridyltransferase Biochemical

Phenotyping, Erythrocytes

Specimen Requirements: Multiple whole blood tests for galactosemia can be performed on 1 specimen. Prioritize order of testing when submitting specimens. For a list of tests that can be ordered together see Galactosemia-Related Test List. Patient Preparation Fasting: 4 hours, preferred not required Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	28 days
	Ambient	14 days

CPT Code Information: 82664; 82775;

MUGS
80350

Hexosaminidase A, Serum

Specimen Requirements: Patient Preparation: Fasting: 4 hours, required; Infants and small children should have specimen collected before next feeding/meal Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	365 days
	Refrigerated	5 days

CPT Code Information: 83080

PCPU
80371

Phencyclidine Confirmation, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Plastic urine container Submission Container Tube: Plastic, 10 mL urine tube Specimen Volume: 10 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test.

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: G0480; 83992 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

BARBU
80372

Barbiturates Confirmation, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 10 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: G0480; 80345 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

HCYSP
80379

Homocysteine, Total, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium or lithium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Immediately place specimen on wet ice. 2. Within 4 hours of collection, centrifuge and aliquot plasma into a plastic vial. 3. If blood cannot be placed on wet ice immediately, then within 1 hour of collection, centrifuge and aliquot plasma into a plastic vial. 4. A refrigerated centrifuge is not required if the above time restrictions are met.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	28 days
	Frozen	309 days
	Ambient	28 days

CPT Code Information: 83090

LKM
80387

Liver/Kidney Microsome Type 1 Antibodies, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86376

MPO
80389

Myeloperoxidase Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83516

PROLX
80458

Fluphenazine (Prolixin), Serum

Specimen Requirements: Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 3 mL serum Collection Instructions: 1. Centrifuge and aliquot 3 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80342

LORAZ
80459

Lorazepam (Ativan), Serum

Specimen Requirements: Submit only 1 of the following specimens: Plasma: Specimen Type: Plasma Collection Container/Tube: Green top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Draw blood in a green-top sodium heparin tube(s), plasma gel tube is not acceptable. Centrifuge and send 2 mL of plasma refrigerated in a plastic vial. Serum: Specimen Type: Serum Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Draw blood in a plain, red-top tube(s), serum gel tube is not acceptable. Centrifuge and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80346; G0480 (if appropriate);

EAG
80510

Hepatitis B Virus e Antigen, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 87350

OSCAL
80579

Osteocalcin, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 12 hours, required 2. For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	72 hours

CPT Code Information: 83937

OAU
80619

Organic Acids Screen, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 10 mL Pediatric: If insufficient collection volume, submit as much specimen as possible in a single container; the laboratory will determine if volume is sufficient for testing. Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	416 days
	Refrigerated	14 days

CPT Code Information: 83919

P5NT
80650

Pyrimidine 5' Nucleotidase, Blood

Specimen Requirements: Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Lavender top (EDTA) Specimen Volume: 5 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 83915

TBT
80667

Concentration, Mycobacteria (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87015

THCG
80678

Human Chorionic Gonadotropin (hCG), Quantitative, Pregnancy, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection do not take multivitamins or dietary supplements containing biotin (vitamin B7), which is commonly found in hair, skin, and nail supplements and multivitamins. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	72 hours	
	Frozen	365 days	

CPT Code Information: 84702

MSTC
80749

Strict Criteria Sperm Morphology for Infertility Diagnosis and Treatment, Semen

Specimen Requirements: Container/Tube: Semen Analysis Kit (T178) Collection Instructions: Patient should have 2 to 7 days of sexual abstinence at the time of semen collection for accurate results. Specimen Volume: Total ejaculate

Specimen Minimum Volume: A minimum count is needed. Lab will determine.

Transport Temperature:

Specimen Type	Temperature	Time
Semen	Ambient	

CPT Code Information: 89398

FNAD
80761

Nadolol, Serum/Plasma

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Submit only 1 of the following specimens: Specimen Type: Serum Collection Container/Tube: Red top (serum gel/SST are not acceptable) Specimen Volume: 1 mL Serum Collection Instructions: 1. Promptly centrifuge and aliquot serum into a plastic vial. 2. Label specimen as serum. 3. Send refrigerated. Specimen Type: Plasma Collection Container/Tube: Lavender top or pink top (EDTA) (plasma gel/PST are not acceptable) Specimen volume: 1 mL Plasma Collection Instructions: 1. Promptly centrifuge and aliquot plasma into a plastic vial. 2. Label specimen as plasma. 3. Send refrigerated.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	30 days
	Ambient	30 days
	Frozen	30 days

CPT Code Information: 80299

FELBA
80782

Felbamate (Felbatol), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Draw blood immediately before next scheduled dose. 2. Within 2 hours of collection, centrifuge the specimen. 3. For red-top tubes, immediately aliquot serum into a plastic vial. 4. For serum-gel tubes, aliquot serum into a plastic vial within 24 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80167

GABA
80826

Gabapentin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST is not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: 1. Draw blood immediately before next scheduled dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80171

CLOM
80902

Clomipramine, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Collect specimen immediately before next scheduled dose (minimum 12 hours after last dose). 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. Serum must be separated from cells within 2 hours of collection.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 80299

PINS
80908

Proinsulin, Plasma

Specimen Requirements: Patient Preparation: Fasting: 8 hours, required; Infants younger than 2 years should fast a maximum of 6 hours Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Ice-cooled, lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Plasma Collection Instructions: 1. Immediately after draw, place the whole blood on ice for at least 10 minutes. 2. Centrifuge at refrigerated temperature, aliquot plasma into a plastic vial, and freeze specimen.

Specimen Minimum Volume: Plasma: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	30 days

CPT Code Information: 84206

TWRP
80909

Tropheryma whipplei, Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Tropheryma whipplei DNA is unlikely. Submit only 1 of the following specimens: Specimen Type: Fresh tissue or biopsy Sources: Small intestine (duodenum, ileum, or jejunum), lymph node, bone, joint, synovial, liver, pancreas, spleen, lung, heart valve (and other heart tissues), or brain Container/Tube: Sterile container Specimen Volume: Entire collection or 5 mm(3) - approximately the size of a pencil eraser Collection Instructions: 1. Collect fresh tissue specimen. 2. Submit tissue only, do not add fluid to tissue. 3. Refrigerate or freeze specimen. Specimen Stability Information: Refrigerated (preferred) 7 days /Frozen 7 days Preferred Paraffin-embedded tissue block: Supplies: Tissue Block Container (T553) Specimen Type: Formalin-fixed, paraffin-embedded tissue block (FFPE) Sources: Small intestine (duodenum, ileum, or jejunum), lymph node, bone, joint, synovial, liver, pancreas, spleen, lung, heart valve (and other heart tissues), or brain Container/Tube: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block to be cut and returned. Specimen Stability Information: Ambient (preferred)/Refrigerated Acceptable Paraffin-embedded tissue block: Specimen Type: Formalin-fixed, paraffin-embedded tissue block (FFPE) Sources: Small intestine (duodenum, ileum, or jejunum), lymph node, bone, joint, synovial, liver, pancreas, spleen, lung, heart valve (and other heart tissues), or

brain Container/Tube: Sterile container for each individual cut section (scroll). Collection Instructions: Perform microtomy and prepare five separate 10-micron sections. Each section (scroll) must be placed in a separate sterile container for submission. Specimen Stability Information: Ambient (preferred)/Refrigerated Specimen Type: Fluid Sources: Cerebrospinal or ocular (eg, vitreous humor) Container/Tube: Sterile vial Specimen Volume: 0.5 mL Specimen Stability Information: Refrigerated (preferred) 7 days/Frozen 7 days Specimen Type: Synovial fluid Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Pink top (EDTA), royal blue top (EDTA), sterile vial containing EDTA-derived aliquot, red clot tube (no anticoagulant), or sterile container Specimen Volume: 0.5 mL Collection Instructions: Send fluid specimen in original tube (preferred). Specimen Stability Information: Refrigerated (preferred) 7 days /Frozen 7 days

Specimen Minimum Volume: Fresh tissue or biopsy: 5 mm(3); Paraffin-embedded tissue block: Two 10-micron sections; All other specimens: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87798

NSE
80913

Neuron-Specific Enolase, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Specimens should not be transported by tube system prior to centrifugation. 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Ambient	5 days

CPT Code Information: 83520

BATTA
80931

Anaerobe Suscep Battery (Bill Only)

Specimen Requirements: This test is for Billing Purposes Only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87186

VZM
80964

Varicella-Zoster Virus (VZV) Antibody, IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86787

HEAB
80973

Hepatitis B Virus e Antibody, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86707

MMPM
80977

Mumps Virus Antibody, IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86735

ROM
80979

Measles (Rubeola) Antibodies, IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86765

CRY_S
80988

Cryoglobulin, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	
	Frozen	

CPT Code Information: 82595; 86334-(if appropriate);

GCLIP
80993

Phospholipid (Cardiolipin) Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86147

PST
80994

Protein S Antigen, Total, Plasma (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85305

LAMO
80999

Lamotrigine, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Collect blood immediately before next scheduled dose. 2. Only for sustained-release formulations, collect blood a minimum of 12 hours after last dose. 3. Within 2 hours of collection, centrifuge. 4. For red-top tubes, immediately aliquot serum into a plastic vial. 5. For serum gel tubes, the serum must be aliquoted into a plastic vial within 24 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80175

OMHC
81030

Oxcarbazepine Metabolite, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST is not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Collect specimen immediately before next scheduled dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80183

SGSS
81031

Synthetic Glucocorticoid Screen, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection

Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Refrigerated	7 days
	Ambient	24 hours

CPT Code Information: 80299

MET
81032

Methemoglobin and Sulfhemoglobin, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: Full tube Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: Patient's age is required.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	72 hours

CPT Code Information: 83050-Methemoglobin; 83060-Sulfhemoglobin;

SGSU
81035

Synthetic Glucocorticoid Screen, Random, Urine

Specimen Requirements: Supplies: Urine tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen	14 days

CPT Code Information: 80299

INHA
81049

Inhibin A, Tumor Marker, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 86336

C7FX
81064

C7 Complement, Functional, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86161

C8FX
81065

C8 Complement, Functional, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86161

C9FX
81066

C9 Complement, Functional, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86161

CYSR
81067

Cystinuria Profile, Quantitative, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Specimen Volume: 2 mL Collection Instructions: Collect a random urine specimen.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	70 days
	Refrigerated	14 days

CPT Code Information: 82136

C3FX
81090

C3 Complement, Functional, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86161

CARNU
81123

Carnitine, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 1.5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	365 days
	Refrigerated	72 hours

CPT Code Information: 82379

BABG
81128

Babesia microti IgG Antibodies, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86753

17OHP
81151

17-Hydroxypregnenolone, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	28 days
	Refrigerated	28 days

CPT Code Information: 84143

LAD1
81155

Leukocyte Adhesion Deficiency Type 1, CD11a/CD18 and CD11b/CD18 Complex Immunophenotyping, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 5 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimens are collected at the same time of day.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86356 x 3

ANAP
81157

Anaplasma phagocytophilum (Human Granulocytic Ehrlichiosis) Antibody, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86666

CCPQ
81185

P/Q-Type Calcium Channel Antibody, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum MGLE / Myasthenia Gravis/Lambert-Eaton Myasthenic Syndrome Evaluation, Serum PNEFS / Neuroimmunology Antibody Follow-Up, Serum

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86596

ITCON
81247

Itraconazole, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection

Container/Tube: Preferred: Red top (serum gel/SST are not acceptable) Acceptable: None Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.18 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	29 days
	Ambient	29 days
	Frozen	29 days

CPT Code Information: 80189

PIPU
81248

Pipecolic Acid, Random, Urine

Specimen Requirements: Supplies: Urine tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	94 days
	Refrigerated	14 days

CPT Code Information: 82542

LAGU
81268

Legionella Antigen, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 0.5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. 3. Excessively bloody or very turbid specimens containing protein, cells, or particulates will be canceled. They can inhibit the function of the test. 4. Centrifuging to remove particulates is not approved. 5. Specimens with any dyes or unnatural color are not acceptable and will be canceled.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	14 days
	Ambient	24 hours

CPT Code Information: 87899

PIPA
81326

Pipecolic Acid, Serum

Specimen Requirements: Patient Preparation: Fasting 12 hours, required; Infants and small children should have specimen collected before next feeding/meal Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL serum Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	94 days
	Refrigerated	14 days

CPT Code Information: 82542

RNP
81357

RNP Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86235

SM
81358

Smith (Sm) Antibodies, IgG, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86235

SSB
81359

SS-B/La Antibodies, IgG, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86235

SSA
81360

SS-A/Ro Antibodies, IgG, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Information: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86235

POX
81369

Fatty Acid Profile, Peroxisomal (C22-C26), Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 12 hours, required; Infants and small children should have specimen collected just before next feeding/meal 2. Patient must not consume any alcohol for 24 hours before the specimen is collected. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL serum Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	92 days
	Refrigerated	15 days

CPT Code Information: 82726

DHEA_
81405

Dehydroepiandrosterone (DHEA), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial. Additional Information: Requests for this test cannot be added to a previously received specimen.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen (preferred)	28 days
	Refrigerated	21 days
	Ambient	6 hours

CPT Code Information: 82626

CDAU7
81410

Drug Abuse Survey with Confirmation, Panel 9, Random, Urine

Specimen Requirements: Supplies: Urine Container, 60 mL (T313) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 60-mL urine bottle Specimen Volume: 30 mL Collection Instructions: 1. Collect a random urine specimen. 2. Submit 30 mL in 1 plastic bottle. 3. No preservative. Additional Information: 1. No specimen substitutions. 2. Submitting less than 30 mL will compromise the ability to perform all necessary testing. 3. STAT requests are not accepted for this test

Specimen Minimum Volume: 15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	14 days

CPT Code Information: 80307

E1
81418

Estrone, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.2 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. Additional Information: For more information see Steroid Pathways.

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82679

F5DNA
81419

Factor V Leiden (R506Q) Mutation, Blood

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD solution B), light-blue top (sodium citrate) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	14 days
	Frozen	14 days
	Refrigerated	14 days

CPT Code Information: 81241; ;

CMUMP
81435

Mumps Virus Antibodies, IgG and IgM, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 0.5 mL Collection Instructions: Submit aliquot from collection vial 1.

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86735 x 2

EHRC
81478

Ehrlichia chaffeensis (HME) Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86666

DHTS
81479

Dihydrotestosterone, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	90 days
	Ambient	28 days

CPT Code Information: 82642

EHRCP
81480

Ehrlichia Antibody Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86666 x 2

CYCL
81506

Cyclospora Stain, Feces

Specimen Requirements: Patient Preparation: Patient should avoid use of antidiarrheal medication (eg, loperamide [Imodium-AD] or Pepto-Bismol). The presence of barium will interfere with this test. Submit only 1 of the following specimens: Preferred: Specimen Type: Preserved stool Supplies: -ECOFIX Stool Transport Vial (Kit) (T219) -Formalin-Meridian 10% Buffered Neutral (T466) Container/Tube: Preferred: ECOFIX Stool Transport Vial (Kit) Acceptable: 10% Buffered Formalin Stool Transport (Kit), Sodium Acetate Formalin (SAF) Specimen Volume: 10 g Specimen Stability Information: Ambient 21 days (preferred)/Refrigerated 21 days Acceptable Specimen Type: Unpreserved stool Supplies: Stool container, Small (Random), 4 oz (T288) Container/Tube: Stool container Specimen Volume: 5 g Specimen Stability Information: Refrigerated 3 days (preferred)

Specimen Minimum Volume: Preserved stool: 1 g Unpreserved stool: 2 g

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Varies	

CPT Code Information: 87015; 87207;

MTBS
81507

Microsporidia Stain, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Duodenal aspirate (small intestinal aspirate, jejunal aspirate, small bowel aspirate) Container/Tube: Sterile container Specimen Volume: 0.5 mL Additional Information: ECOFIX and 10% formalin are acceptable preservatives. Specimen Stability Information: Preserved Ambient (preferred) <10 days/Refrigerated <3 days Specimen Type: Respiratory secretions (bronchoalveolar lavage [BAL], sputum, bronchial wash, pleural fluid) Container/Tube: Sterile container Specimen Volume: 0.5 mL Specimen Stability Information: Refrigerated <3 days (preferred)/Frozen <10 days Specimen Type: Eye (vitreous fluid, ocular fluid) Container/Tube: Sterile container Specimen Volume: 0.5 mL Specimen Stability: Refrigerated <3 days Specimen Type: Corneal scraping Container/Tube: Sterile container Specimen Volume: 0.5mL in sterile saline Additional Information: Place scrapings in sterile saline for shipping.

Specimen Stability: Refrigerated <3 days Specimen Type: Fresh tissue (lung, eye, bladder, rectal, intestinal, colon, skin, muscle, kidney) Container/Tube: Sterile container Specimen Volume: 3-mm biopsy in 0.1-mL sterile saline Specimen Stability: Refrigerated <3 days Specimen Type: Gallbladder aspirate/Bile aspirate Container/Tube: Sterile container Specimen Volume: 0.5 mL Specimen Stability: Refrigerated <3 days/Frozen <10 days

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87015-Concentration; 87207-Stain;

CBL
81541

Blastomyces Antibody Immunodiffusion, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 0.5 mL Collection Instructions: Submit specimen from collection vial number 2 (preferred), 3, or 4.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86612

CCOC
81542

Coccidioides Antibody, Complement Fixation and Immunodiffusion, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 2 mL Collection Instructions: Submit specimen from collection vial number 2 (preferred), vials 3, or 4 are acceptable.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86635 x 3

TOPI
81546

Topiramate, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: 1. Draw blood immediately before next scheduled dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80201

MPA
81563

Mycophenolic Acid, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Draw blood immediately before the next scheduled dose (trough). 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	21 days

CPT Code Information: 80180

IOD
81574

Iodine, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83789

BART
81575

Bartonella Antibody Panel, IgG and IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	30 days

CPT Code Information: 86611 x 4

UBT
81590

Helicobacter pylori Breath Test

Specimen Requirements:

Specimen Minimum Volume: Bag of "breath" must be full

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Breath	Ambient	14 days	BREATH TEST BAG

CPT Code Information: 83013

SLO
81595

Smith-Lemli-Opitz Screen, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Green top (sodium or lithium heparin) Acceptable: Lavender top (EDTA), pearl white top (EDTA plasma gel), yellow top (ACD solution A or B) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL plasma Collection Instructions: 1. Centrifuge and aliquot plasma into plastic vial. 2. Send plasma frozen.

Specimen Minimum Volume: Plasma: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	92 days
	Refrigerated	28 days
	Ambient	14 days

CPT Code Information: 82542

GD65S
81596

Glutamic Acid Decarboxylase (GAD65) Antibody Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum -MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum -PCDES / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Serum -SPPS / Stiff-Person Spectrum Disorders Evaluation, including Progressive Encephalomyelitis with Rigidity and Myoclonus, Serum -PNEFS / Neuroimmunology Antibody Follow-up, Serum

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86341

MMLRG 81601 Antimicrobial Susceptibility, Acid-Fast Bacilli, Rapidly Growing, Varies

Specimen Requirements: Specimen Type: Organism Supplies: Infectious Container, Large (T146) Container/Tube: Middlebrook 7H10 agar slant or other appropriate media Specimen Volume: Pure isolate Collection Instructions: Organism must be in pure culture, actively growing.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87186

MMLYP 81602 Antimicrobial Susceptibility Panel, Yeast, Varies

Specimen Requirements: Specimen Type: Organism in pure culture Supplies: Infectious Container, Large (T146) Container/Tube: Sabouraud's dextrose agar slant Specimen Volume: Infecting yeast isolate Collection Instructions: Organism must be in pure culture, actively growing. Do not submit mixed cultures.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87186

CA153
81607

Cancer Antigen 15-3 (CA 15-3), Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days

CPT Code Information: 86300

TRYPT
81608

Tryptase, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial Additional Information: Tryptase degenerates very quickly when left in the presence of red blood cells.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Refrigerated	7 days

CPT Code Information: 83520

PMET
81609

Metanephrines, Fractionated, Free, Plasma

Specimen Requirements: Patient Preparation: Use of an Epi-pen within the last 7 days may produce inaccurate results. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube:

Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Within 2 hours of collection centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	28 days
	Refrigerated	14 days
	Ambient	7 days

CPT Code Information: 83835

FRUCT
81610

Fructosamine, Serum

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	60 days
	Ambient	72 hours

CPT Code Information: 82985

HCVG
81618

Hepatitis C Virus Genotype, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. Additional Information: 1. This test requires a minimum hepatitis C virus viral load of 500 IU/mL within the 30 days preceding collection. 2. Serum specimens previously submitted to other laboratories for non-microbiology tests are not acceptable for add-on test requests due to possible sample-to-sample carryover from automation used for those tests.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum SST	Frozen (preferred)	42 days	ALIQUOT TUBE
	Refrigerated	72 hours	ALIQUOT TUBE

CPT Code Information: 87902

FER
81641

Semen Analysis, Semen

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Semen	Ambient	

CPT Code Information: 89310

FQPPS
81652

Porphyrins, Feces

Specimen Requirements: Patient Preparation: 1. For 3 days before, as well as during, specimen collection, patient must not eat red meat or take any aspirin-containing medications. 2. For 24 hours before, as well as during, specimen collection, patient must not use barium, laxatives, or enemas. Supplies: Stool Containers - 24, 48, 72 Hour Kit (T291) Container/Tube: Stool containers Specimen Volume: Entire collection (48, 72, or 96 hours). 24-Hour collection is adequate if the collection volume is at least 100 g Collection Instructions: 1. Collect all stool specimens within a 24, 48, 72, or 96-hour timeframe. 2. Do not add preservative. 3. Send entire collection. Additional Information: Specimens smaller than 100 g may not provide accurate results.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen (preferred)	14 days
	Refrigerated	14 days

CPT Code Information: 84126

PNRP
81698

Pneumocystis jiroveci, Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Pneumocystis species DNA is unlikely. Preferred Specimens: Pleural, respiratory (eg, bronchoalveolar lavage [BAL], bronchial washing, sputum), or fresh tissue Acceptable Specimens: If no fresh specimen is available, digested respiratory specimens treated with N-acetyl-L-cysteine-sodium hydroxide (NALC/NaOH) are acceptable (eg, BAL, bronchial washing, respiratory fluid, sputum, or tracheal secretion) Submit only 1 of the following specimens: Preferred Specimen Type: Body fluid Sources: Pleural Container/Tube: Sterile container Specimen Volume: 1 mL Additional Information: Only fresh, non-NALC/NaOH-digested body fluid is acceptable. Specimen Type: Respiratory Sources: BAL, bronchial washing, tracheal secretions, or sputum Container/Tube: Sterile container Specimen Volume: 1 mL if only PCR ordered or 3 mL if PCR ordered with smear and culture Specimen Type: Tissue Sources: Respiratory Container/Tube: Sterile container Specimen Volume: 5-10 mm Collection Instructions: 1. Submit fresh tissue. 2. Keep tissue moist with sterile water or sterile saline Acceptable Specimen Type: NALC/NaOH-digested respiratory specimens Sources: BAL, bronchial washing, respiratory fluid, sputum, or tracheal secretion Container/Tube: Sterile container Specimen Volume: 2 mL Collection Instructions: 1. Submit digested specimen treated with NALC/NaOH. 2. Clearly indicate on container and order form that specimen is a digested specimen.

Specimen Minimum Volume: Body fluid or nondigested respiratory specimen: 0.5 mL; Fresh tissue: 5 mm; NALC-NaOH-digested specimen: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87594

TREE3
81704

Tree Panel #3, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TREE4
81705

Tree Panel #4, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GRAS1
81706

Grass Panel # 1, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GRAS2
81707

Grass Panel # 2, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GRAS3
81708

Grass Panel # 3, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

EPIP1
81709

Epithelia Panel # 1, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

UE3
81711

Estriol, Unconjugated, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	14 days	
	Frozen	90 days	

CPT Code Information: 82677

PTNT
81742

Prothrombin G20210A Mutation, Blood

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD solution B), light-blue top (sodium citrate) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	14 days
	Frozen	14 days
	Refrigerated	14 days

CPT Code Information: 81240-F2 (prothrombin, coagulation factor II) (eg, hereditary hypercoagulability) gene analysis, 20210G>A variant

TPO
81765

Thyroperoxidase Antibodies, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86376

PTHRP
81774

Parathyroid Hormone-Related Peptide, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Ice-cooled, lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Plasma Collection Instructions: 1. Centrifuge specimen in a refrigerated centrifuge or in chilled centrifuge cups. 2. Aliquot plasma into plastic vial and freeze.

Specimen Minimum Volume: Plasma: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	30 days

CPT Code Information: 82397

BILIT
81785

Bilirubin, Total, Serum

Specimen Requirements: Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Amber vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into an amber vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	7 days	LIGHT PROTECTED
	Frozen	30 days	LIGHT PROTECTED
	Ambient	24 hours	LIGHT PROTECTED

CPT Code Information: 82247

BILID
81787

Bilirubin, Direct, Serum

Specimen Requirements: Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Amber vial Specimen Volume: 0.5 mL Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For serum gel tubes, aliquot serum into an amber vial within 6 hours. Protect from light. 3. For red top tubes, aliquot serum into an amber vial immediately. Protect from light. 4. Refrigerate or freeze serum.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	24 hours	LIGHT PROTECTED
	Frozen	30 days	LIGHT PROTECTED
	Ambient	6 hours	LIGHT PROTECTED

CPT Code Information: 82248

BUN
81793

Blood Urea Nitrogen (BUN), Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	365 days

CPT Code Information: 84520

PTOX
81795

Toxoplasma gondii, Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Amniotic fluid Container/Tube: Sterile container Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Spinal fluid Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: 12 x 75-mm screw cap vial Acceptable: Sterile vial Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Fresh tissue Supplies: M4-RT (T605) Container/Tube: Preferred: Multi-microbe medium (eg, M4-RT) Acceptable: Sterile container with 1 to 2 mL of sterile saline Specimen Volume: Entire collection Collection Instructions: Submit only fresh tissue in a sterile container containing 1 mL to 2 mL of sterile saline or multi-microbe medium (M4-RT, M4, or M5) Specimen Type: Ocular fluid Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container: 12 x 75-mm screw cap vial (swabs are NOT acceptable) Specimen Volume: 0.3 mL Collection Instructions: 1. Aliquot collected fluid into screw-cap vial. Do not submit ocular fluid in syringe. 2. Do not centrifuge or dilute the specimen.

Specimen Minimum Volume: Amniotic fluid, Ocular fluid, Spinal fluid: 0.3 mL; Tissue: 2 x 2 mm biopsy

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

NSESF
81796

Neuron-Specific Enolase (NSE), Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 0.5 mL

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	15 days
	Ambient	72 hours

CPT Code Information: 83520

THYRO
81797

Thyrotropin Receptor Antibody, Serum

Specimen Requirements: Patient Preparation: 1. For 12 hours before specimen collection. patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). 2. Patient should not be receiving heparin treatment. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days

CPT Code Information: 83520

EEST
81816

Estradiol, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (SST/serum gel tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.2 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. Additional Information: For more information see Steroid Pathways.

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82670

C2
81835

C2 Complement, Functional, with Reflex, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	21 days

CPT Code Information: 86161; 86160 x 2 (if appropriate);

FOOD1
81868

Food-Nut Panel # 2, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FOOD2
81869

Food-Fruit Panel, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FOOD4
81872

Food-Grain Panel, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FOOD6
81874

Food Panel, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FOOD7
81875

Food-Seafood Panel, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FOOD8
81876

Food-Nut Panel # 1, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HD1
81877

House Dust Panel, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MOLD1
81878

Mold Panel, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FETH2
81880

Feather Panel # 2, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

EPIP2
81881

Epithelia Panel # 2, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WEED1
81882

Weed Panel # 1, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x

number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WEED2
81883

Weed Panel # 2, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WEED3
81884

Weed Panel # 3, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WEED4
81885

Weed Panel # 4, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TREE1
81886

Tree Panel #1, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MCLIP 81900 Phospholipid (Cardiolipin) Antibodies, IgM, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86147

FAO 81927 Fatty Acid Oxidation Probe Assay, Fibroblast Culture

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Cultured fibroblasts Container/Tube: T-75 or T-25 flask Specimen Volume: 1 Full T-75 flask or 2 full T-25 flasks Specimen Stability Information: Ambient (preferred)/Refrigerated Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Tubes can be supplied upon request (Eagle's minimum essential medium with 1% penicillin and streptomycin). Specimen Volume: 4-mm Punch Specimen Stability Information: Refrigerated (preferred)/Ambient

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Varies	

CPT Code Information: 82017

PMSBB 81931 Postmortem Screening, Bile and Blood Spot

Specimen Requirements: Both bile and blood spots are required. Supplies: Card-Postmortem Screening (Filter Paper) (T525) Container/Tube: Preferred: Card-Postmortem Screening Card (Filter Paper) Acceptable: Whatman Protein Saver 903 paper or local newborn screening card Specimen Volume: Properly completed screening card Collection Instructions: 1. Collect blood in a heparin-

containing tube and drop 25 mcL of blood onto the 2 circles labeled Blood. 2. Collect bile by direct puncture of the gallbladder and drop 25 mcL of bile onto the 2 circles labeled Bile. 3. Allow to dry at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Fill out information on page 2 of collection card. 5. Do not expose specimen to heat or direct sunlight. 6. Do not stack wet specimens. 7. Keep specimen dry.

Specimen Minimum Volume: Bile spot: 1; Blood spot: 1

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	FILTER PAPER	
	Frozen	FILTER PAPER	
	Refrigerated	FILTER PAPER	

CPT Code Information: 83789

AACSF
81934

Amino Acids, Quantitative, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 0.2 mL Collection Instructions: Collect specimen from second collection vial.

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen	14 days

CPT Code Information: 82139

FAPM
81939

Fatty Acid Profile, Mitochondrial (C8-C18), Serum

Specimen Requirements:

Specimen Minimum Volume: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	92 days
	Refrigerated	72 hours

CPT Code Information: 82725

PSAFT
81944

Prostate-Specific Antigen (PSA), Total and Free, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Within 3 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Refrigerated	72 hours

CPT Code Information: 84153; 84154;

APCRV
81967

Activated Protein C Resistance V (APCRV), Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85307

MMLNS
82019

Antimicrobial Susceptibility, Nocardia species and other

Aerobic Actinomycetes, Varies

Specimen Requirements: Specimen Type: Organism in pure culture Supplies: Infectious Container, Large (T146) Container/Tube: Preferred: Middlebrook 7H10 agar slant without antimicrobials Acceptable: Sabouraud's dextrose agar slant or similar media without antimicrobials (eg, 7H11 agar slant, LJ, MGIT [7H9] broth media) Specimen Volume: Isolate Collection Instructions: Organism must be in pure culture, actively growing.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87186

SPSA
82023

Prostate-Specific Antigen (PSA) Screen, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: 1. Red-top tube must be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection. 2. Serum gel tube must be centrifuged within 2 hours of collection.

Specimen Minimum Volume: Serum: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	180 days
	Refrigerated	5 days

CPT Code Information: 84153; G0103 (if appropriate);

NARC
82026

Narcolepsy-Associated Antigen, HLA-DQB1 Typing, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A), lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original vial. Do not aliquot. Additional Information: Specimen acceptability is based on extracted DNA concentration and not sample age.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 81376-HLA Class II typing, low resolution (eg, antigen equivalents); one locus (eg, HLA-DRB1/3/4/5, -DQB1, -DQA1, -DPB1, or -DPA1), each

TAB
82041

Thyroid Autoantibodies Profile, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86376-Thyroperoxidase antibody; 86800-Thyroglobulin antibody ;

FAPCP
82042

Fatty Acid Profile, Comprehensive (C8-C26), Serum

Specimen Requirements: Patient Preparation: 1. Fasting: a. For nutritional assessment: 12 hours, required b. For patients with a suspected fatty acid oxidation disorder, prolonged fasting is contraindicated. Collect as close to the patient's next scheduled meal/feeding as possible. 2. Patient must not consume any alcohol for 24 hours before the specimen collection. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	92 days
	Refrigerated	72 hours

CPT Code Information: 82725

PBGU
82068

Porphobilinogen, Quantitative, Random, Urine

Specimen Requirements: Patient Preparation: Patient must not consume any alcohol for at least 24 hours before specimen collection. Supplies: Urine Container-Amber, 60 mL (T596) Specimen Volume: 20 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative necessary but pH must be above 5.0. If pH is below 5.0, specimen will be rejected. 3. Specimens should be protected from light and frozen immediately following collection.

Specimen Minimum Volume: 15 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Urine	Frozen (preferred)	7 days	LIGHT PROTECTED
	Refrigerated	7 days	LIGHT PROTECTED

CPT Code Information: 84110

STER
82079

Sterols, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Green top (sodium or lithium heparin) Acceptable: Lavender top (EDTA), pearl white top (EDTA plasma gel), yellow top (ACD solution A or B) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL plasma Collection Instructions: 1. Centrifuge specimen and aliquot plasma into plastic vial. 2. Send plasma frozen.

Specimen Minimum Volume: Plasma: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	92 days
	Refrigerated	28 days
	Ambient	14 days

CPT Code Information: 82542

HBA1C
82080

Hemoglobin A1c, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days
	Ambient	24 hours

CPT Code Information: 83036

FRDIG
82130

Digoxin, Free, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection do not take multivitamins or dietary supplements containing biotin (vitamin B7), which is commonly found in hair, skin, and nail supplements and multivitamins. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Draw blood 6 to 8 hours after last dose of digoxin. 2. Serum gel tubes should be centrifuged within 2 hours of collection. 3. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	180 days

CPT Code Information: 80163

NBILI
82133

Neonatal Bilirubin, Serum

Specimen Requirements: Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: 2 Serum gel Microtainers Acceptable: 2 Red top Microtainers Submission Container/Tube: Amber vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel microtainers should be centrifuged within 2 hours of collection. 2. Red-top microtainers should be centrifuged, and the serum aliquoted into an amber vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	24 hours	LIGHT PROTECTED
	Frozen	30 days	LIGHT PROTECTED
	Ambient	6 hours	LIGHT PROTECTED

CPT Code Information: 82247; 82248;

BOV
82135

Bovine Serum Albumin, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86008

MARE
82141

Mare's Milk, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CDROP
82142

Chicken Droppings, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FEEP
82143

Ferret Epithelium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PIGF
82145

Pigeon Feathers, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FINCH
82146

Finch Feathers, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RUPR
82148

Rabbit Urine Proteins, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SCALS
82259

Scallop, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MACK
82342

Mackerel, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CRAY
82343

Crayfish, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SNAIL
82344

Snail, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ANCH
82345

Anchovy, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SWORD
82346

Swordfish, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MEGR
82347

Megrim, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HAKE
82348

Hake, Fish, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LANG
82349

Langust (Lobster), IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CSPR
82351

Chicken Serum Proteins, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MAND
82352

Mandarin, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PERS
82353

Persimmon, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PFRUT
82355

Passion Fruit, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PAPY
82356

Papaya, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

DATE
82358

Date, Fruit, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BLUE
82359

Blueberry, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LIME
82360

Lime, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BLACK
82361

Blackberry, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PUSE
82362

Pumpkin Seed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GRFE
82365

Greek Fennel, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RASE
82366

Rape Seed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GUM
82367

Gum Arabic, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CAROB
82368

Carob, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BTROP
82374

Blomia tropicalis, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PINE
82381

Pine Nut, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SBSE
82382

Sugarbeet Seed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CHGL
82384

Chaetomium globosum, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CEAC
82387

Cephalosporium acremonium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

USNU
82388

Ustilago nuda, Mold Grain Rust, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ELDR
82392

Elder, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SPRU
82394

Spruce, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LYSO
82398

Lysozyme, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86008

SSAB
82403

SS-A and SS-B Antibodies, IgG, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86235 x 2

ACRN
82413

Acylcarnitines, Quantitative, Plasma

Specimen Requirements: Patient Preparation: Collect specimen just before scheduled meal or feeding. Collection Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) or green top (lithium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.1 mL Plasma Collection Instructions: Centrifuge and aliquot plasma into plastic vial.

Specimen Minimum Volume: 0.04 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	92 days
	Refrigerated	64 days
	Ambient	8 days

CPT Code Information: 82017

CDTA
82425

Carbohydrate Deficient Transferrin, Adult, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.05 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	45 days
	Refrigerated	28 days
	Ambient	7 days

CPT Code Information: 82373

FAPEP
82426

Fatty Acid Profile, Essential, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: a. For nutritional assessment: 12 hours, required b. For patients with a suspected fatty acid oxidation disorder, prolonged fasting is contraindicated. Collect as close to the patient's next scheduled meal/feeding as possible. 2. Patient must not consume any alcohol for 24 hours before the specimen collection. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	92 days
	Refrigerated	72 hours

CPT Code Information: 82725

HYPOG
82439

Hypoglycemic Agent Screen, Serum

Specimen Requirements: Patient Preparation: Specimen must be collected during an episode of hypoglycemia. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume:1.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen (preferred)	28 days
	Refrigerated	28 days
	Ambient	7 days

CPT Code Information: G0480 80377 (if appropriate for select payers)

CTBBL
82443

Mycobacterial Culture, Blood

Specimen Requirements: Container/Tube: Preferred: Green top (sodium or lithium heparin) Acceptable: SPS (sodium polyanethol sulfonate) Specimen Volume: 8 to 10 mL per culture Collection Instructions: 1. Send whole blood specimen in original tube. 2. SPS tubes are acceptable, but not preferred. 3. Note: SPS tubes must be clearly labeled as SPS. If label is obscured, sample may be canceled, as ACD (yellow top) is not an acceptable tube type.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 87116-Mycobacterial Culture; 87118-Id MALDI-TOF Mass Spec AFB (if appropriate); 87150-Id, Mtb Speciation, PCR (if appropriate); 87153-Mtb PZA Confirmation, pcnA sequence (if appropriate); 87153-Mycobacteria Identification by Sequencing (if appropriate); 87150- Id, MTB complex Rapid PCR (if appropriate);

ALPS
82449

Alpha Beta Double-Negative T Cells for Autoimmune Lymphoproliferative Syndrome, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimens are collected at the same time of day.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86356 x2; 86359;

CORI
82476

Coriander, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

EGGP
82477

Eggplant, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ASPAR
82478

Asparagus, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GGUM
82479

Guar Gum, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BSPR
82480

Brussels Sprouts, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

DATRE
82481

Date, Tree, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CEDR
82482

Cedar, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SGUM
82483

Sweet Gum, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HBEA
82484

Hornbeam, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TARR
82486

Tarragon, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ANSE
82487

Anise, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GING
82488

Ginger, IgE

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BASL
82489

Basil, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CLOV
82490

Clove, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MACE
82492

Mace, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CWAY
82493

Caraway, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CHXP
82494

Chick Pea, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

OREG
82496

Oregano, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

NMEG
82497

Nutmeg, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

NICOS
82509

Nicotine and Metabolites, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.8 mL serum Collection Instructions: Within 2 hours of collection, centrifuge and

aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: G0480; 80323 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

NICOU
82510

Nicotine and Metabolites, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	365 days
	Ambient	28 days

CPT Code Information: G0480; 80323 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

RSER
82544

Rabbit Serum Proteins, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GERB
82545

Gerbil Epithelium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ULCH
82546

Ulocladium chartarum, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TUNA
82547

Tuna, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MUSS
82548

Blue Mussel, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

POFF
82549

Parietaria officinalis, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GMILK
82550

Goat's Milk, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HBV
82551

Honeybee Venom, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TTGA
82587

Tissue Transglutaminase Antibody, IgA, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86364

TBNY
82589

T, B and NK Lymphocyte Quantitation, New York, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimen collection be performed at the same time of day.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	52 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86355; 86357; 86359; 86360;

SNS
82594

Supplemental Newborn Screen, Blood Spot

Specimen Requirements: Patient must be older than 24 hours and less than 1 week of age. Supplies: Card-Blood Spot Collection Filter Paper (T493) Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 Paper, Munktell, PerkinElmer 226 filter paper, or local newborn screening card Specimen Volume: 3 Blood spots Collection Instructions: 1. Do not use device or capillary tube containing EDTA to collect specimen. 2. Completely fill at least 3 circles on the filter paper card (approximately 100 microliters blood per circle). 3. Let blood dry on the Blood Spot Collection Card at ambient temperature in a horizontal position for 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions. 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800).

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	FILTER PAPER	
	Frozen	FILTER PAPER	
	Refrigerated	FILTER PAPER	

CPT Code Information: 83789

BAYL
82601

Bay Leaf, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

DILL
82602

Dill, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MARJ
82605

Marjoram, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

THYM
82606

Thyme, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CTRE
82607

Chestnut Tree, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HFSF
82608

Horsefly/Stablefly, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GSTB
82610

Green String Bean, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LUPN
82613

Lupin, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SUNF
82615

Sunflower, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RWEED
82616

Rape Weed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CALFL
82617

Cauliflower, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BEETS
82618

Beets (Beetroot), IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL; For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

KIDBN
82619

Kidney Bean (Red), IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

VANIL
82621

Vanilla, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WHEY
82622

Whey, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GPEP
82623

Green Pepper, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CINN
82624

Cinnamon, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TEA
82625

Tea, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MUSH
82626

Mushroom, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SQUID
82631

Squid, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

POPSD
82632

Poppy Seed, IgE, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL; For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HALI
82633

Halibut, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PENIV
82656

Penicillin V, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested

Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

YFHV
82657

Yellow Faced Hornet Venom, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WFHV
82658

White Faced Hornet Venom, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WSPV
82659

Wasp Venom, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PBPO
82660

Penicillin G, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

YJV
82661

Yellow Jacket Venom, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

EHOR
82662

European Hornet, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

AMOXY
82663

Amoxicillin, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

AMP
82664

Ampicillin, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CAT
82665

Cat Epithelium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WRW
82666

Western Ragweed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SRW
82667

Short Ragweed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CED
82668

Mountain Cedar, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BECH
82669

Beech, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HAZ
82670

Hazelnut-Tree, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ALDR
82671

Grey Alder, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ELM
82672

Elm, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

OAK
82673

Oak, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BIR
82674

Silver Birch, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MUC
82675

Mucor, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

STBY
82676

Strawberry, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SHRI
82677

Shrimp, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LEM
82678

Lemon, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

OXI
82679

Ox-Eye Daisy, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WORM
82680

Wormwood, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RUSS
82681

Russian Thistle, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LAMQ
82682

Lamb's Quarter, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MUG
82683

Mugwort, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FRW
82684

False Ragweed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GRW
82685

Giant Ragweed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WHT
82686

Wheat, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BRLY
82687

Barley, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

OATS
82688

Oat, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RYE
82689

Rye, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CDAB
82690

Candida albicans (Monilia), IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

COCR
82693

Cockroach, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

DAND
82694

Dandelion, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TOMA
82695

Tomato, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

STEM
82696

Stemphyllium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BEEF
82697

Beef, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL; For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FANT
82698

Fire Ant, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LAMB
82699

Lamb, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PORK
82700

Pork, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MARS
82701

Rough Marsh Elder, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TURK
82702

Turkey, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CHIC
82703

Chicken, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

EGPL
82704

English Plantain, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CORN
82705

Corn-Food, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GUIN
82706

Guinea Pig Epithelium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MOUS
82707

Mouse Epithelium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

DUCK
82708

Duck Feathers, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RICE
82709

Rice, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

POTA
82710

White Potato, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BAHG
82711

Bahia Grass, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

APPL
82712

Apple, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CHCK
82713

Chicken Feathers, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GOOS
82714

Goose Feathers, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BOT
82715

Botrytis cinerea, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SCLE
82716

Scale, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GLDR
82717

Goldenrod, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CRNP
82718

Corn Pollen, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspac

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WHIC
82719

White Hickory, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TCPT
82720

Trichophyton rubrum, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ESYC
82721

Eastern Sycamore, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BCYP
82722

Bald Cypress, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RRRP
82723

Rough Pigweed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MELAI
82724

Melaleuca leucadendron, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RAT
82725

Rat Epithelium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BENW
82726

White Bean, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BUCW
82727

Buckwheat, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SESA
82728

Sesame Seed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WPIN
82729

White Pine, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ASHW
82730

White Ash, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WILL
82731

Willow, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WALN
82732

Walnut Tree, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

OLIV
82733

Olive Tree, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

NETT
82734

Nettle, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FBSH
82735

Firebush (Kochia), IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PHMA
82736

Phoma betae, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SORR
82737

Red Sorrel, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MOTH
82738

Moth, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CCNT
82739

Coconut, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ORNG
82740

Orange, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FLUC
82741

5-Flucytosine, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum for a peak level should be collected 1 to 2 hours after oral dose, 1 hour after intramuscular dose, or 30 minutes after intravenous infusion. Trough specimens should be collected immediately prior to next scheduled dose. 2. Within 2 hours of collection, centrifuge, and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

CROT
82742

Carrot, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

NUTH
82743

Hazelnut-Food, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LOB
82744

Lobster, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CRAB
82745

Crab, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BANA
82746

Banana, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SHWL
82747

Sheep Wool, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CTWD
82748

Cottonwood, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HELM
82749

Helminthosporium halodes, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FUSM
82750

Fusarium moniliforme, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MCHZ
82751

Cheese, Mold, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL; For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CCHZ
82752

Cheese, Cheddar, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

YOLK
82753

Egg Yolk, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SALM
82754

Salmon, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ACAC
82757

Acacia, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

EUCL
82758

Eucalyptus, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BYST
82759

Baker's Yeast, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GARL
82760

Garlic, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

KIWI
82761

Kiwi Fruit, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MELN
82762

Melons, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ASCRI
82764

Ascaris, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PSLY
82765

Parsley, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CELY
82766

Celery, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

EOXD
82767

Ethylene Oxide, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ISPG
82768

Ispaghula, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

IHDI
82773

Isocyanate HDI, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

IMDI
82774

Isocyanate MDI, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ITDT
82775

Isocyanate TDI, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MESQ
82776

Mesquite, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CFTH
82778

Canary Feathers, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BFTH
82779

Budgerigar Feathers, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HEPI
82780

Hamster Epithelium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PIGE
82781

Pig Epithelium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

REPII
82782

Rabbit Epithelium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GOAT
82783

Goat Epithelium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PTRE
82784

Privet Tree, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BGRS
82785

Barley Grass, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PAHD
82786

Phthalic Anhydride, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LATX
82787

Latex, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TROT
82788

Trout, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

INHU
82789

Insulin (Human), IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BDRP
82791

Budgerigar Droppings, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MOSP
82792

Mouse Serum Protein, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RTSP
82793

Rat Serum Protein, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RTUP
82794

Rat Urine Protein, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MOUP
82795

Mouse Urine Protein, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SQUA
82797

Squash, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CHER
82798

Cherry, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SPOT
82799

Sweet Potato, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GRAP
82800

Grape, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MSTD
82801

Mustard, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CBUR
82802

Cocklebur, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

APIN
82803

Australian Pine, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CSED
82804

Cottonseed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LETT
82805

Lettuce, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ONIN
82806

Onion, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PEAR
82807

Pear, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PISTA
82808

Pistachio, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PLUM
82809

Plum, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PAPR
82810

Paprika, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MANGO
82811

Mango, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

AVOC
82812

Avocado, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SUNFS
82813

Sunflower Seed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BLPEP
82814

Black/White Pepper, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PNAP
82815

Pineapple, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PECH
82816

Peach, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BROC
82817

Broccoli, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SARD
82818

Sardine (Pilchard), IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

JMACK
82819

Jack Mackerel, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

OCTO
82820

Octopus, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SQUI
82821

Pacific Squid, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CHUB
82822

Chub Mackerel, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HERR
82823

Herring, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TURKF
82824

Turkey Feathers, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

OVMU
82825

Ovomucoid, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86008

OVAL
82826

Ovalbumin, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86008

PMLK
82827

Milk, Processed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

DMIC
82828

Dermatophagoides microceras, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CAGR
82829

Canary Grass, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WRGR
82830

Wild Rye Grass, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

FMIL
82832

Foxtail Millet, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CMIL
82833

Common Millet, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MALT
82834

Malt, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

APR
82835

Apricot, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GRFR
82836

Grapefruit, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PLAI
82837

Plaice, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BBEET
82838

Berlin Beetle, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BWOR
82840

Blood Worm, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MSPP
82845

Mosquito Species, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

EMAY
82846

Euroglyphus maynei, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GDOM
82847

Glycyphagus domesticus, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TRYPI
82848

Tyrophagus putrescentiae, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LEPD
82849

Lepidoglyphus destructor, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ACAR
82850

Acarus siro, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CURL
82852

Curvularia lunata, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TRVI
82853

Trichoderma viride, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

EPUR
82854

Epicoccum purpurascens, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

AUPU
82855

Aureobasidium pullulans, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RHNI
82856

Rhizopus nigricans, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ANISP
82857

Anisakis, Parasite, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SMFL
82858

Seminal Fluid, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

COTT
82859

Cotton Fiber, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RAMB
82860

Rabbit Meat, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CUKE
82861

Cucumber, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LIND
82862

Linden, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

QPALM
82863

Queen Palm, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MULB
82864

Mulberry, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

JCEDR
82865

Japanese Cedar, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

AAMY
82866

Alpha-Amylase, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For one allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86008

FRMH
82869

Formaldehyde, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CNUT
82870

Chestnut, Sweet, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MILK
82871

Milk, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

EGG
82872

Egg White, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

COW
82873

Cow Epithelium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HORS
82874

Horse Dander, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BXMPL
82876

Box Elder/Maple, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PJUD
82877

Parietaria judaica, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BAMB
82879

Bamboo Shoot, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PEC
82880

Pecan-Food, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CASH
82881

Cashew, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ALM
82882

Almond, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

OYST
82883

Oyster, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CLAM
82884

Clam, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LEN
82885

Lentil, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SOY
82886

Soybean, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GPEA
82887

Green Pea, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PEAN
82888

Peanut, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 86003

COD
82889

Codfish, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested

Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MEAD
82890

Meadow Fescue, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

TIMG
82891

Timothy Grass, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BERG
82892

Bermuda Grass, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

JUNE
82893

June Grass, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GLT
82894

Gluten, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CASE
82895

Casein, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86008

BLAC
82896

Beta-Lactoglobulin, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86008

ALFA
82897

Alpha-Lactalbumin, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86008

BLW
82898

Walnut-Food, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BRAZ
82899

Brazil Nut, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

JOHN
82900

Johnson Grass, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

REDT
82901

Red Top, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

REED
82902

Common Reed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HDHS
82903

House Dust/H-S Lab, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

DP 82904 House Dust Mites/Dermatophagoides pteronyssinus, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

DF 82905 House Dust Mites/Dermatophagoides farinae, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For one allergen: 0.3 mL For more than one allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HDG
82906

House Dust/Greer Lab, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ORCH
82907

Orchard Grass, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RYEG
82908

Rye Grass, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

VERG
82909

Sweet Vernal Grass, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ALTN
82910

Alternaria tenuis, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ASP
82911

Aspergillus fumigatus, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CLAD
82912

Cladosporium, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PENL
82913

Penicillium chrysogenum, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

MFOX
82914

Meadow Foxtail, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

WHTC
82915

Cultivated Wheat, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

OATC
82916

Cultivated Oat, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

VELV
82917

Velvet Leaf, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CRYE
82918

Cultivated Rye, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BROM
82919

Brome Grass, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

NAGR
82943

Hexosaminidase A and Total, Leukocytes/Molecular Reflex, Whole Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood ACD	Refrigerated (preferred)	6 days	YELLOW TOP/ACD
	Ambient	6 days	YELLOW TOP/ACD

CPT Code Information: 83080 x2; 81406 (if appropriate); 81479 (if appropriate);

COCOU
82948

Cortisol/Cortisone, Free, 24 Hour, Urine

Specimen Requirements: Supplies: Urine Tubes, 10-mL (T068) Submission Container/Tube: Plastic, urine tube (T068) Specimen Volume: 5 mL Collection Instructions: 1. Add 10 g of boric acid as preservative at the start of the collection. 2. Collect urine for a full 24 hours (required) and record the total volume. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 82530-Cortisol; free; 82542;

TRYPP
82955

Tryptophan, Plasma

Specimen Requirements: Patient Preparation: Fasting: 4 hours, required; Infants should have specimen collected before next feeding (2-3 hours without total parenteral nutrition if possible) Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Green top (sodium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Collect specimen and place on wet ice. Note: Thrombin-activated tubes should not be used for collection. 2. Centrifuge immediately or within 4 hours of collection if the specimen is kept at refrigerated temperature. 3. Being careful to ensure that no buffy coat is transferred, aliquot plasma into a plastic vial and freeze.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	14 days

CPT Code Information: 82131

XHIM
82964

X-Linked Hyper IgM Syndrome, Blood

Specimen Requirements: Container/Tube: Green top (sodium heparin) Specimen Volume: 4 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimen collection be performed at the same time of day.

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
WB Sodium Heparin	Ambient	72 hours	GREEN TOP/HEP

CPT Code Information: 88184-Flow cytometry, cell surface, cytoplasmic; 88185 x 6-Each additional marker;

PR3
82965

Proteinase 3 Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial

Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83516

CLPMG
82976

Phospholipid (Cardiolipin) Antibodies, IgG and IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86147 x 2

BAP
82985

Bone Alkaline Phosphatase, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 84080

METAF
83006

Metanephrines, Fractionated, 24 Hour, Urine

Specimen Requirements: Patient Preparation: Tricyclic antidepressants, labetalol, and sotalol medications may elevate levels of metanephrines producing results that cannot be interpreted. If clinically feasible, it is optimal to discontinue these medications at least 1 week before collection. For advice on assessing the risk of removing patients from these medications and alternatives, consider consultation with a specialist in endocrinology or hypertension. Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic urine tube Specimen Volume: 10 mL Collection Instructions: 1. Complete 24-hour urine collections are preferred, especially for patients with episodic hypertension; ideally the collection should begin at the onset of a "spell." 2. Add 10 g (pediatric: 3 g) of boric acid or 25 mL (pediatric: 15 mL) of 50% acetic acid as preservative at start of collection. 3. Collect urine for 24 hours. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83835

VASC
83012

Antineutrophil Cytoplasmic Antibodies Vasculitis Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83516 x 2; 86036 x 2 (if appropriate);

PSTF
83049

Protein S Antigen, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85306-Free; 85305-Total (if appropriate);

CRMWS
83107

Collapsin Response-Mediator Protein-5-IgG, Western Blot, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 84182

TCGR
83122

T-Cell Receptor Gene Rearrangement, PCR, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81340-TCB (T cell antigen receptor, beta) (eg, leukemia and lymphoma), gene rearrangement analysis to detect abnormal clonal population(s); using amplification methodology (eg, PCR); 81342-TCG (T cell receptor, gamma) (eg, leukemia and lymphoma), gene rearrangement analysis, evaluation to detect abnormal clonal population(s);

BCGR
83123

Immunoglobulin Gene Rearrangement, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81261-IGH (Immunoglobulin heavy chain locus) (eg, leukemias and lymphomas B-cell), gene rearrangement analysis to detect abnormal clonal populations; amplified methodology (eg. polymerase chain reaction); 81264-IGK (Immunoglobulin kappa light chain locus) (eg, leukemia and lymphoma, B-cell) gene rearrangement analysis, evaluation to detect abnormal clonal populations;

MTDNU
83129

Methadone Confirmation, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube:

Plastic urine container Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 10 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: G0480; 80358 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

LEVE
83140

Levetiracetam, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Draw blood immediately before next scheduled dose. 2. For sustained-release formulations only, draw blood a minimum of 12 hours after last dose. 3. Within 2 hours of collection, centrifuge, and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80177

QFP
83149

Q Fever IgM and IgG, Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see QFEVR / Q Fever Antibody Screen with Titer Reflex, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 86638 x 4

SPNEU
83150

Streptococcus pneumoniae Antigen, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 2 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. 3. Excessively bloody or very turbid specimens containing protein, cells, or particulates will be canceled, as they can inhibit the function of the test. 4. Do not centrifuge to remove particulates. 5. Specimens with any dyes or unnatural color are not acceptable and will be canceled.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	24 hours

CPT Code Information: 87899

PARVO
83151

Parvovirus B19, Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 0.5 mL Collection Instructions: 1. Do not centrifuge. 2. Label specimen as amniotic fluid. Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 0.5 mL Collection Instructions: 1. Do not centrifuge. 2. Label specimen as spinal fluid. Specimen Type: Synovial fluid Container/Tube: Sterile vial or lavender top (EDTA) Specimen Volume: 0.5 mL Collection Instructions: Label specimen as synovial fluid. Alternate: Specimen Type: Bone marrow Container/Tube: Sterile container or lavender top (EDTA) Specimen Volume: 0.5 mL Collection Instructions: Label specimen as bone marrow.

Specimen Minimum Volume: Amniotic Fluid, Bone Marrow, and Spinal Fluid 0.3 mL; Synovial fluid 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

CTX
83175

Beta-CrossLaps, Serum

Specimen Requirements: Patient Preparation: Fasting: 12 hours, required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Collect specimen prior to 10 a.m. 2. Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Refrigerated	72 hours

CPT Code Information: 82523

CHIDB
83182

Chimerism-Donor, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Label specimen as blood. 3. Send whole blood specimen in original tube. Do not aliquot. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Specimen Type: Extracted DNA from blood or bone marrow Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. Label specimen as extracted DNA from blood or bone marrow 2. Indicate volume and concentration of the DNA Specimen Type: Buccal swab Supplies: Buccal Swab Kit (T543) Container/Tube: Buccal smear collection kit Specimen Volume: 2 Cyto-Pak brushes-1 per cheek Collection Instructions: 1. Patient should rinse out mouth vigorously with mouthwash for approximately 15 seconds. 2. Remove Cyto-Pak brush from container only touching "stick" end. Save container. 3. Using medium pressure, rotate brush several times on inside of cheek. 4. Return brush to container and cap. 5. Repeat steps 2 through 4 on other cheek using second brush. 6. It is important that patient's buccal cells are not contaminated with cells from any other source. Do not touch bristles. Do not brush too

vigorously. If blood appears, discard brush and restart collection process. 7. Label each container with patient's name and order number or hospital/clinic number. Additional Information: It is important that the cells do not dry out during shipping. Ensure that container is tightly sealed.

Specimen Minimum Volume: Whole blood: 3 mL Bone marrow/Buccal swab: See Specimen Required Extracted DNA from blood or bone marrow: 50 microliters at 20 ng/microliter Lesser volumes may be acceptable, depending on white cell count. Call 800-533-1710 or 507-266-5700 with questions.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81265-Comparative analysis using short tandem repeat (STR) markers; patient and comparative specimen (eg, pre-transplant recipient and donor germline testing, post-transplant non-hematopoietic recipient germline [eg, buccal swab or other germline tissue sample] and donor testing, twin zygosity testing or maternal cell contamination of fetal cells)

CHRGB
83186

Chimerism-Recipient Germline (Pretransplant), Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Label specimen as blood. 3. Send whole blood specimen in original tube. Do not aliquot. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Specimen Type: Extracted DNA from blood or bone marrow Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. Label specimen as extracted DNA from blood or bone marrow 2. Indicate volume and concentration of the DNA Specimen Type: Buccal swab Supplies: Buccal Swab Kit (T543) Container/Tube: Buccal smear collection kit Specimen Volume: 2 Cyto-Pak brushes-1 per cheek Collection Instructions: 1. Patient should rinse out mouth vigorously with mouthwash for approximately 15 seconds. 2. Remove Cyto-Pak brush from container only touching "stick" end. Save container. 3. Using medium pressure, rotate brush several times on inside of cheek. 4. Return brush to container and cap. 5. Repeat steps 2 through 4 on other cheek using second brush. 6. It is important that patient's buccal cells are not contaminated with cells from any other source. Do not touch bristles. Do not brush too vigorously. If blood appears, discard brush and restart collection process. 7. Label each container with patient's name and order number or hospital/clinic number. Additional Information: It is important that the cells do not dry out during shipping. Ensure that container is tightly sealed.

Specimen Minimum Volume: Whole blood: 3 mL Bone marrow/buccal swab: See Specimen Required Extracted DNA from blood or bone marrow: 50 microliters at 20 ng/microliter Lesser volumes may be acceptable, depending on white cell count. Call 800-533-1710 or 507-266-5700 with questions.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81265-Comparative analysis using Short Tandem Repeat (STR) markers; patient and comparative specimen (eg, pre-transplant recipient and donor germline testing, post-transplant non-hematopoietic recipient germline [eg, buccal swab or other germline tissue sample] and donor testing, twin zygosity testing or maternal cell contamination of fetal cells)

BUAUC
83188

Busulfan, Intravenous Dose, Area Under the Curve, Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Heparin	Frozen (preferred)	28 days
	Refrigerated	72 hours

CPT Code Information: 80299 x 4

TICKS
83265

Tick-Borne Disease Antibodies Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	10 days
	Frozen	14 days

CPT Code Information: 86618; 86666 x 2; 86753; 86617 x 2-Lyme disease Western blot (if

appropriate);

ARBOP
83267

Arbovirus Antibody Panel, IgG and IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86651 x 2-California virus (La Crosse) encephalitis antibody, IgG and IgM; 86652 x 2-Eastern equine encephalitis antibody, IgG and IgM; 86653 x 2-St. Louis encephalitis antibody, IgG and IgM; 86654 x 2-Western equine encephalitis antibody, IgG and IgM;

HTLVL
83277

Human T-Cell Lymphotropic Virus Types I and II (HTLV-I/-II) Antibody Confirmation, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	
	Refrigerated	7 days

CPT Code Information: 86689

IGFB3
83300

Insulin-Like Growth Factor-Binding Protein 3, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.8 mL Collection Instructions: Centrifuge promptly and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Ambient	72 hours
	Refrigerated	72 hours

CPT Code Information: 83520

STRC
83316

Standard Renal Clearance, Plasma and Random Urine

Specimen Requirements: Contact MLI for approval prior to ordering this test. Both plasma and urine are required. Specimen Type: Plasma Container/Tube: 6-mL Green top (sodium heparin) Specimen Volume: 3-4 mL Collection Instructions: Label specimen as plasma. Specimen Type: Urine Container/Tube: Sarstedt 5 mL Aliquot Tube (T914) Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine collection. 2. No preservative. 3. Label specimen as urine.

Specimen Minimum Volume: 2 mL plasma/5 mL urine

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Heparin	Refrigerated (preferred)	7 days
	Frozen	7 days
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 82542 x 7

BA190
83336

BCR::ABL1, p190, mRNA Detection, Reverse Transcription-PCR (RT-PCR), Quantitative, Monitoring Assay, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type:

Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: Whole blood: 8 mL; Bone marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	5 days	PURPLE OR PINK TOP/EDTA
	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81207

PAS3
83345

Pediatric Allergy Screen

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003 x 5

PAS38
83346

Pediatric Allergy Screen 3 to 8 Years, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.8 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.55 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003 x 6

PAS8
83347

Pediatric Allergy Screen >8 Years, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003 x 5

PYRC
83356

Pyruvate, Spinal Fluid

Specimen Requirements: Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 0.6 mL Collection Instructions: Send specimen from vial 4.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	14 days
	Ambient	7 days

CPT Code Information: 84210

C1QFX
83374

C1q Complement, Functional, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86161

C4FX
83391

C4 Complement, Functional, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86161

C5FX
83392

C5 Complement, Functional, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86161

C6FX
83393

C6 Complement, Functional, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86161

RNAP
83397

RNA Polymerase III Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.3 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83516

HBGCD
83626

Hepatitis B Surface Antigen for Cadaveric or Hemolyzed Specimens, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 87340; 87341 (if appropriate);

HV1CD
83628

HIV-1 and HIV-2 Antibodies for Cadaveric or Hemolyzed Specimens, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 86703; 86701; 86702;

CTDC
83631

Connective Tissue Diseases Cascade, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial

Specimen Volume: 1 mL Collection Information: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86038; 86200; 83516-Centromere (if appropriate); 83516-Ribosome (if appropriate); 86225-ds-DNA AB IgG, Serum (if appropriate); 86235 x 6-RNP, Sm, SS-B, SS-A, Jo 1, and Scl 70 (if appropriate);

ACASM
83632

Pernicious Anemia Cascade, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 12 hours, required 2. For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). 3. For 1 week before specimen collection, if medically feasible, patient should not take proton pump inhibitors (omeprazole, lansoprazole, dexlansoprazole, esomeprazole, pantoprazole, and rabeprazole). 4. For at least 2 weeks before specimen collection, patient should not take or receive drugs that interfere with gastrointestinal motility (eg, opioids). Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 3 mL serum Collection Instructions: 1. Centrifuge, divide specimen into 3 plastic vials: Vial 1 (B12PA): 1 mL of serum Vial 2 (PAMMA): 1.5 mL of serum Vial 3 (PAGAS): 0.5 mL of serum 2. Band specimens together and send frozen.

Specimen Minimum Volume: Serum: 1.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	24 hours

CPT Code Information: 82607; 82941-if appropriate; 83921-if appropriate; 86340-if appropriate;

THSCM
83633

Thyroid Function Cascade, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and the

serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 84443; 84439 (if appropriate); 84480 (if appropriate); 86376 (if appropriate);

SUAC
83635

Succinylacetone, Blood Spot

Specimen Requirements: Submit only 1 of the following specimen types: Preferred: Specimen Type: Blood Spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 Paper, PerkinElmer 226 filter paper, Munktell filter paper, or blood collected in tube containing EDTA and dried on filter paper. Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. At least 1 spot should be complete (ie, unpunched). 3. Let blood dry on the Blood Spot Collection Card (T493) at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Specimen Stability Information: Ambient (preferred) 7 days/Refrigerated 14 days/Frozen 90 days Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Acceptable Specimen Type: Whole Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Refrigerate 6 days

Specimen Minimum Volume: Blood spots: 1; Whole blood: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Varies	

CPT Code Information: 84510; 82542; 82542 (if appropriate for government payers);

GALP
83638

Galactose, Quantitative, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Green top (sodium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Plasma Collection Instructions: Centrifuge and aliquot plasma into a plastic vial

Specimen Minimum Volume: Plasma: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Heparin	Frozen (preferred)	365 days
	Ambient	20 days
	Refrigerated	20 days

CPT Code Information: 82760

CRGSP
83659

Cryoglobulin and Cryofibrinogen Panel, Serum and Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.5 mL; Serum: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	
	Frozen	
Serum Red	Refrigerated (preferred)	
	Frozen	

CPT Code Information: 82585; 82595; 86334-Immunofixation (if appropriate);

TTGG
83660

Tissue Transglutaminase Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86364

25HDN
83670

25-Hydroxyvitamin D2 and D3, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Within two hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 82306

TSTGP
83671

Tissue Transglutaminase Antibodies, IgA and IgG Profile, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86364 x 2

LMPP
83673

Lipoprotein Metabolism Profile, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 12 hours, required 2. Patient must not consume any alcohol for 24 hours before the specimen is collected. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	60 days

CPT Code Information: 80061-Lipid panel (includes: HDL [CPT Code 83718], total cholesterol [CPT Code 82465], and triglycerides [CPT Code 84478] if all performed); 82172-Apolipoprotein B; 83700-Lp(a) cholesterol electrophoresis;

TTRX
83674

Amyloidosis, Transthyretin-Associated Familial, Reflex, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	4 days
	Ambient	4 days

CPT Code Information: 82542; 81404 (if appropriate);

SFGP
83679

Spotted Fever Group Antibody, IgG and IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86757 x 2

ZONI
83685

Zonisamide, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST is not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80203

TTFB
83686

Testosterone, Total, Bioavailable, and Free, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial

Specimen Volume: 3.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	60 days

CPT Code Information: 84402; 84403; 84410;

PCAB
83728

Parietal Cell Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83516

PFCEA
83742

Carcinoembryonic Antigen (CEA), Pleural Fluid

Specimen Requirements: Sources: Pleural fluid, thoracentesis fluid Container/Tube: Plain, plastic, screw-top tube Specimen Volume: 2 mL

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Pleural Fluid	Frozen (preferred)	90 days
	Refrigerated	14 days
	Ambient	7 days

CPT Code Information: 82378

TRYPU
83823

Tryptophan, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 2 mL Collection Instructions: Collect a random urine specimen.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	70 days
	Refrigerated	14 days

CPT Code Information: 82131

DENGM
83865

Dengue Virus Antibody, IgG and IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: IgM-86790; IgG-86790;

BNP
83873

B-Type Natriuretic Peptide, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	365 days

CPT Code Information: 83880

ABOPC
83897

Arbovirus Antibody Panel, IgG and IgM, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Preferred: Vial number 2 Acceptable: Any vial Specimen Volume: 0.7 mL Collection Instructions: Submit specimen collected in vial 2, if possible. If not, note which vial from which the aliquot was obtained.

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86651 x 2-California Virus (La Crosse) Encephalitis Antibody Panel, IgG and IgM, Spinal Fluid; 86652 x 2-Eastern Equine Encephalitis Antibody Panel, IgG and IgM, Spinal Fluid; 86653 x 2-St. Louis Encephalitis Antibody Panel, IgG and IgM, Spinal Fluid; 86654 x 2-Western Equine Encephalitis Antibody Panel, IgG and IgM, Spinal Fluid;

STLPC
83916

St. Louis Encephalitis Antibody Panel, IgG and IgM, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see ABOPC / Arbovirus Antibody Panel, IgG and IgM, Spinal Fluid. Container/Tube: Sterile vial Preferred: Vial number 2 Acceptable: Any vial Specimen Volume: 0.7 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86653 x 2

PMLR
84114

PML::RARA Quantitative, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot 3. Label specimen as bone marrow.

Specimen Minimum Volume: Blood: 8 mL; Bone Marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	5 days	PURPLE OR PINK TOP/EDTA
	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81315-PML/RAR-alpha (t(15;17)), (PML-RARA regulated adaptor molecule 1) (eg, promyelocytic leukemia) translocation analysis; all breakpoints (eg, intron 3, intron 6 and variable in exon 6), qualitative or quantitative

COKEM
84140

Cocaine and Metabolites Confirmation, Meconium

Specimen Requirements: Supplies: Stool container, Small (Random), 4 oz (T288) Container/Tube: Stool container Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: Collect entire random meconium specimen.

Specimen Minimum Volume: 0.3 g (approximately 1/4 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen (preferred)	21 days
	Refrigerated	21 days
	Ambient	72 hours

CPT Code Information: G0480; 80353 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

CCP
84182

Cyclic Citrullinated Peptide Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86200

GD65C
84221

Glutamic Acid Decarboxylase (GAD65) Antibody Assay, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -PCDEC / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Spinal Fluid -SPPC / Stiff-Person Spectrum Disorders Evaluation, including Progressive Encephalomyelitis with Rigidity and Myoclonus, Spinal Fluid -PNEFC / Neuroimmunology Antibody Follow-up, Spinal Fluid

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86341

ESTF
84230

Estrogens, Estrone (E1) and Estradiol (E2), Fractionated, Serum

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82671-Estrogens, fractionated; 82670-Estradiol (If appropriate); 82679-Estrone (If appropriate);

IGGS4
84250

IgG4, Immunoglobulin Subclasses, Serum

Specimen Requirements: Patient Preparation: Fasting: 12 hours, preferred but not required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 82787

THCM
84284

11-nor-Delta-9-Tetrahydrocannabinol-9-Carboxylic Acid

(Carboxy-THC) Confirmation, Meconium

Specimen Requirements: Supplies: Stool container, Small (Random), 4 oz (T288) Container/Tube: Stool container Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: Collect entire random meconium specimen.

Specimen Minimum Volume: 0.3 g (approximately 1/4 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen (preferred)	28 days
	Refrigerated	21 days
	Ambient	14 days

CPT Code Information: G0480; 80349 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

ANAE
84292

Bacterial Culture, Anaerobic, Varies

Specimen Requirements: Supplies: Anaerobe Transport Tube (T588) Specimen Types: Deep tissues, sterile body fluids, abscesses, percutaneous transtracheal aspirates, suprapubic aspirations, or wounds Collection Instructions: Specimen should be obtained by using a needle and syringe from a source not normally colonized by anaerobes.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	72 hours

CPT Code Information: 87075-Bacterial Culture, Anaerobic; 87076-Id MALDI-TOF Mass Spec Anaerobe (if appropriate); 87153-Anaerobe Ident by Sequencing (if appropriate); 87176-Tissue Processing (if appropriate); 87150-Identification by PCR (if appropriate);

PNEFC
84299

Neuroimmunology Antibody Follow-up, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Preferred: Vial number 1 Acceptable: Any vial Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 AK5CC (if appropriate); 86255 AK5IC (if appropriate); 84182 AGNBC (if appropriate); 86255 AINCC (if appropriate); 86255 AMPCC (if appropriate); 86255 AMPHC (if appropriate); 84182 AMIBC (if appropriate); 84182 AN1BC (if appropriate); 84182 AN2BC (if appropriate); 86255 AGN1C (if appropriate); 86255 ANN1C (if appropriate); 86255 ANN2C (if appropriate); 86255 ANN3C (if appropriate); 86255 APBCC (if appropriate); 86255 APBIC (if appropriate); 86255 CS2CC (if appropriate); 84182 CRMWC (if appropriate); 86255 CRMC (if appropriate); 86255 DPPCC (if appropriate); 86255 DPPIC (if appropriate); 86255 GABCC (if appropriate); 86255 GFACC (if appropriate); 86255 GFAIC (if appropriate); 86255 GRFCC (if appropriate); 86255 GRFIC (if appropriate); 86255 IG5CC (if appropriate); 86255 IG5IC (if appropriate); 86255 ITPCC (if appropriate); 86255 ITPIC (if appropriate); 86255 LG1CC (if appropriate); 84182 MP1BC (if appropriate); 86255 GL1CC (if appropriate); 86255 GL1IC (if appropriate); 86255 GL5CC (if appropriate); 86255 GL5IC (if appropriate); 86255 NCDCC (if appropriate); 86255 NCDIC (if appropriate); 86255 NFHCC (if appropriate); 86255 NIFIC (if appropriate); 86255 NFLCC (if appropriate); 86255 NMDCC (if appropriate); 84182 PC1BC (if appropriate); 84182 PCTBC (if appropriate); 86255 PCTRC (if appropriate); 86255 PCA1C (if appropriate); 86255 PCA2C (if appropriate); 86255 PDEIC (if appropriate); 86255 SP5CC (if appropriate); 86255 SP5IC (if appropriate); 86255 SP7CC (if appropriate); 86255 SP7IC (if appropriate); 86255 T46CC (if appropriate); 86255 T46IC (if appropriate);

PNEFS
84300

Neuroimmunology Antibody Follow-up, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 AAGFS (if appropriate); 86043 ACMFS (if appropriate); 84182 AGNBS (if appropriate); 86255 AK5CS (if appropriate); 86255 AK5IS (if appropriate); 86255 AINCS (if appropriate); 86255 AMPCS (if appropriate); 86255 AMPHS (if appropriate); 84182 AMIBS (if

appropriate); 84182 AN1BS (if appropriate); 84182 AN2BS (if appropriate); 86255 AGN1S (if appropriate); 86255 ANN1S (if appropriate); 86255 ANN2S (if appropriate); 86255 ANN3S (if appropriate); 86255 APBCS (if appropriate); 86255 APBIS (if appropriate); 86255 CS2CS (if appropriate); 86255 CRMS (if appropriate); 86255 DPPCS (if appropriate); 86255 DPPIS (if appropriate); 86255 GABCS (if appropriate); 86255 GFACS (if appropriate); 86255 GFAIS (if appropriate); 86255 GRFCS (if appropriate); 86255 GRFIS (if appropriate); 83516 IGG_D (if appropriate); 86255 IG5CS (if appropriate); 86255 IG5IS (if appropriate); 83516 IGM_D (if appropriate); 83516 IGM_M (if appropriate); 86255 ITPCS (if appropriate); 86255 ITPIS (if appropriate); 86255 LG1CS (if appropriate); 84182 MP1BS (if appropriate); 86255 GL1CS (if appropriate); 86255 GL1IS (if appropriate); 86255 GL5CS (if appropriate); 86255 GL5IS (if appropriate); 86255 NCDCS (if appropriate); 86255 NCDIS (if appropriate); 86255 NFHCS (if appropriate); 86255 NIFIS (if appropriate); 86255 NFLCS (if appropriate); 86255 NMDCS (if appropriate); 83519 CCPQ (if appropriate); 84182 PC1BS (if appropriate); 84182 PCTBS (if appropriate); 86255 PCABP (if appropriate); 86255 PCAB2 (if appropriate); 86255 PCATR (if appropriate); 86255 PDEIS (if appropriate); 86255 SP5CS (if appropriate); 86255 SP5IS (if appropriate); 86255 SP7CS (if appropriate); 86255 SP7IS (if appropriate); 86255 SRPIS (if appropriate); 84182 SRPBS (if appropriate); 86255 T46CS (if appropriate); 86255 T46IS (if appropriate;

OPATM
84326

Opiate Confirmation, Meconium

Specimen Requirements: Supplies: Stool container, Small (Random), 4 oz (T288) Container/Tube: Stool container Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: Collect entire random meconium specimen.

Specimen Minimum Volume: 0.3 g (approximately 1/4 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen (preferred)	28 days
	Refrigerated	28 days
	Ambient	14 days

CPT Code Information: G0480; 80361 (if appropriate for select payers); 80365 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

TCD4
84348

CD4 Count for Immune Monitoring, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimen collection be performed at the same time of day.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86359-T cells, total count; 86360-Absolute CD4/CD8 count with ratio;

ASPAG
84356

Aspergillus (Galactomannan) Antigen, Serum

Specimen Requirements: Container/Tube: Serum gel (red-top tubes are not acceptable) Specimen Volume: 1.5 mL Serum Collection Instructions: 1. Avoid exposure of specimen to atmosphere to prevent sample contamination from environment. 2. Centrifuge and send specimen in original serum gel collection tube. Do not aliquot serum or open tube.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum SST	Refrigerated (preferred)	14 days	SERUM GEL TUBE
	Frozen	14 days	SERUM GEL TUBE

CPT Code Information: 87305

GCT
84360

Galactosemia Reflex, Blood

Specimen Requirements: Multiple whole blood tests for galactosemia can be performed on one specimen. Prioritize order of testing when submitting specimens. For a list of tests that can be ordered together, see Galactosemia-Related Test List. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium heparin) or yellow top (ACD) Specimen Volume: 5 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	28 days
	Ambient	14 days

CPT Code Information: 82775; 81406 (if appropriate);

AMPHM
84371

Amphetamine-Type Stimulants Confirmation, Meconium

Specimen Requirements: Supplies: Stool container, Small (Random), 4 oz (T288) Container/Tube: Stool container Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: Collect entire random meconium specimen.

Specimen Minimum Volume: 0.3 g (approximately 1/4 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Meconium	Frozen (preferred)	28 days	
	Ambient	28 days	
	Refrigerated	28 days	

CPT Code Information: 80324; 80359; G0480 (if appropriate);

SERWB
84373

Serotonin, Blood

Specimen Requirements: Patient Preparation: Patient should not take medications that may elevate serotonin levels, including lithium, monoamine oxidase inhibitors, methyldopa, morphine, and reserpine, or selective serotonin reuptake inhibitors (SSRI, eg, PROZAC) which can lead to depletion of platelet serotonin levels and result in false-negative serotonin results for a minimum of 72 hours before specimen collection. Some drugs with longer half-lives (i.e. fluoxetine) can require months after discontinuation for serotonin levels to return to baseline. Supplies: Serotonin Tube (T259) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Serotonin tube containing ascorbic acid Specimen Volume: 2.5 mL Collection Instructions: 1. Immediately after collection, transfer approximately 2.5 mL of whole blood to the serotonin tube and mix well (any volume of whole blood from 1.5-3 mL is acceptable). 2. Immediately freeze specimen (necessary to lyse the red blood cells).

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Frozen	90 days	SEROTONIN TUBE

CPT Code Information: 84260

TGAB
84382

Thyroglobulin Antibody, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Red top (gel tubes/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86800

FGEN
84389

Fungal Culture, Routine

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Body fluid Container/Tube: Sterile container Specimen Volume: Entire collection Specimen Type: Fresh tissue Container/Tube: Sterile container Specimen Volume: Pea size Collection Instructions: Tissue should be placed in small amount of sterile saline or sterile water. Acceptable: Specimen Type: Bone marrow Container/Tube: Sterile container, SPS/Isolator system, or green top (lithium or sodium heparin) Specimen Volume: Entire collection Specimen Type: Respiratory specimen Container/Tube: Sterile container Specimen Volume: Entire collection Specimen Type: Urine Container/Tube: Sterile container Specimen Volume: 2 mL Collection Instructions: Collect a random urine specimen. Fresh tissue or body fluid are preferred over a swab specimen. Recovery of mycobacteria from swabs is generally very low yield. Only submit a swab specimen if tissue biopsy or fluid aspiration is not possible. Specimen Type: Swab Supplies: BD E-Swab (T853) Sources: Dermal, ear, mouth, ocular, throat, or wound Container/Tube: Sterile, screw-capped tube containing Liquid Amies Medium with flocked swab (eg, E-Swab) Specimen Volume: 1 mL in swab container with swab Collection Instructions: 1. Before collecting specimen, wipe away any excessive amount of secretion and discharge, if appropriate. 2. Obtain secretions or fluid from source with sterile flocked swab. Paranasal sinus collections must use a nasopharyngeal flocked swab. 3. Place flocked swab in sterile, screw-capped tube containing 1 mL of Liquid Amies Medium. 4. If smear and culture are requested or both a bacterial culture and fungal culture are requested, collect a second swab to maximize test sensitivity. Submit each swab in a separate sterile, screw-capped tube with 1 mL of Liquid Amies Medium.

Specimen Minimum Volume: Bone marrow or body fluid: 1 mL; Cerebrospinal fluid: 0.5 mL; Respiratory specimen: 1.5 mL; All other specimen types: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Ambient	7 days

CPT Code Information: 87102-Fungal culture, routine; 87106-Id MALDI-TOF Mass Spec Yeast (if appropriate); 87107-Id MALDI-TOF Mass Spec Fungi (if appropriate); 87107-Fungal identification panel A (if appropriate); 87107-Fungal identification panel B (if appropriate); 87153-D2 fungal sequencing identification (if appropriate); 87153-ITS Fungal Sequencing (if appropriate); 87176-Tissue processing (if appropriate);

FS
84390

Fungal Smear, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Body fluid Container/Tube: Sterile container Specimen Volume: Entire collection Specimen Type: Fresh tissue Container/Tube: Sterile container Specimen Volume: Pea size Collection Instructions: Tissue should be placed in small amount of sterile saline or sterile water. Acceptable: Specimen Type: Bone marrow Container/Tube: Sterile container, SPS/Isolator system, or green top (lithium or sodium heparin) Specimen Volume: Entire collection Specimen Type: Respiratory specimen Container/Tube: Sterile container Specimen Volume: Entire collection Specimen Type: Urine Container/Tube: Sterile container Specimen Volume: 2 mL Collection Instructions: Collect a random urine specimen. Fresh tissue or body fluid are preferred over a swab specimen. Recovery of mycobacteria from swabs is generally very low yield. Only submit a swab specimen if tissue biopsy or fluid aspiration is not possible. Specimen Type: Swab Sources: Dermal, ear, mouth, ocular, throat, or wound Supplies: BD E-swab (T853) Container/Tube: Sterile, screw-capped tube containing Liquid Amies Medium with flocked swab (eg, E-Swab) Specimen Volume: Flocked swab in 1 mL of Liquid Amies Medium Collection Instructions: 1. Before collecting specimen, wipe away any excessive amount of secretion and discharge, if appropriate. 2. Obtain secretions or fluid from source with sterile flocked swab. 3. Place flocked swab in sterile, screw-capped tube containing 1 mL of Liquid Amies Medium. 4. If smear and culture are requested or both a bacterial culture and fungal culture are requested, collect a second swab to maximize test sensitivity. Submit each swab in a separate sterile, screw-capped tube with 1 mL of Liquid Amies Medium.

Specimen Minimum Volume: Bone marrow, body fluid, or respiratory specimen: 0.2 mL; Any other specimen type: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Ambient	7 days

CPT Code Information: 87206; 87176-Tissue processing (if appropriate);

SER
84395

Serotonin, Serum

Specimen Requirements: Patient Preparation: Patient should not take medications that may elevate serotonin levels, including lithium, monoamine oxidase inhibitors, methyldopa, morphine, and reserpine, or selective serotonin reuptake inhibitors (SSRI, eg, PROZAC) which can lead to depletion of platelet serotonin levels and result in false-negative serotonin results for a minimum of 72 hours before specimen collection. Some drugs with longer half-lives (i.e. fluoxetine) can require months after discontinuation for serotonin levels to return to baseline. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2.5 mL Collection Instructions: Centrifuge as soon as blood has clotted and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	90 days
	Ambient	4 days

CPT Code Information: 84260

VRERP
84406

Vancomycin-Resistant Enterococcus, Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by vancomycin-resistant Enterococcus DNA is unlikely. Submit only 1 of the following specimens: Preferred: Specimen Type: Perianal, perirectal, rectal, anal Supplies: Culturette (BBL Culture Swab) (T092) Container/Tube: Culture transport swab (Dacron or rayon swab with aluminum or plastic shaft with either Stuart or Amies liquid medium) Specimen Volume: Swab Specimen Stability Information: Refrigerated (preferred)/Frozen Acceptable: Specimen Type: Preserved feces Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of non-nutritive transport medium containing phenol red as a pH indicator, either Cary-Blair, Para-Pak C and S vial) Specimen Volume: Representative portion of feces Collection Instructions: 1. Collect fresh feces and submit 1 gram or 5 mL in container with transport medium. 2. Within 2 hours of collection, place feces in preservative. Specimen Stability Information: Ambient (preferred)/ Refrigerated Specimen Type: Unpreserved feces Supplies: -Stool Container, Small (Random), 4 oz Random (T288) -Stool Collection Kit, Random (T635) Container/Tube: Fecal container Specimen Volume: Representative portion of feces Collection Instructions: Collect fresh fecal specimen and submit representative sample in fecal container. Specimen Stability Information: Refrigerated (preferred)/Frozen

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87500

HSVG
84429

Herpes Simplex Virus (HSV) Type 1- and Type 2-Specific Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86695; 86696;

BARRP
84440

Bartonella, Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Bartonella species DNA is unlikely. Submit only 1 of the following specimens: Specimen Type: Fresh tissue or biopsy Sources: Heart valve, liver, lymph node, spleen, or skin tissue papule/lesion/nodule Container/Tube: Sterile container Specimen Volume: Entire collection or 5 mm(3) - approximately the size of a pencil eraser Collection Instructions: 1. Collect fresh tissue specimen. 2. Submit tissue only, do not add fluid to tissue. 3. Refrigerate or freeze specimen. Specimen Stability Information: Refrigerated (preferred) 7 days/ Frozen 7 days Preferred Paraffin-embedded tissue block: Specimen Type: Formalin-fixed, paraffin-embedded tissue block (FFPE) Sources: Heart valve, liver, lymph node, spleen, or skin tissue papule/lesion/nodule Supplies: Tissue Block Container (T553) Container/Tube: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block to be cut and returned. Specimen Stability Information: Ambient (preferred)/Refrigerated Acceptable: Paraffin-embedded tissue block: Specimen Type: Formalin-fixed, paraffin-embedded tissue block (FFPE) Sources: Heart valve, liver, lymph node, spleen, or skin tissue papule/lesion/nodule Container/Tube: Sterile container for each individual cut section (scroll) Collection Instructions: 1. Perform microtomy and prepare five separate 10-micron sections. 2. Each section (scroll) must be placed in a separate sterile container for submission. Specimen Stability Information: Ambient (preferred)/Refrigerated Specimen Type: Fluid Sources: Cerebrospinal (CSF) or ocular (eg, vitreous humor) fluid Container/Tube: Sterile vial Specimen Volume: 0.5 mL Specimen Stability Information: Refrigerated (preferred) 7 days/Frozen 7 days Collection

Instructions: For CSF, submit specimen from collection vial 2. Specimen Type: Synovial fluid Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Pink top (EDTA), royal blue top (EDTA), sterile vial containing EDTA-derived aliquot, red clot tube (no anticoagulant), or sterile container Specimen Volume: 0.5 mL Collection Instructions: Send synovial fluid specimen in original tube (preferred). Specimen Stability Information: Refrigerated (preferred) 7 days /Frozen 7 days

Specimen Minimum Volume: Fresh tissue or biopsy: 5 mm(3); Paraffin-embedded tissue block: two 10-micron sections; Fluid: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87801

BILEA
84689

Bile Acids, Total, Serum

Specimen Requirements: Patient Preparation: Fasting: 12 hours, required; Infants and pregnant patients do not need to fast. Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and serum aliquoted into plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 82239

PRL
85670

Prolactin, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection do not take multivitamins or dietary supplements containing biotin (vitamin B7), which is commonly found in hair, skin, and nail supplements and multivitamins. Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days
	Ambient	24 hours

CPT Code Information: 84146

PAI1
86083

Plasminogen Activator Inhibitor Antigen, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	

CPT Code Information: 85415

ACLIP
86179

Phospholipid (Cardiolipin) Antibodies, IgA, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86147

AB2GP
86180

Beta-2 Glycoprotein 1 Antibodies, IgA, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86146

MB2GP
86181

Beta-2 Glycoprotein 1 Antibodies, IgM, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86146

GB2GP
86182

Beta-2 Glycoprotein 1 Antibodies, IgG, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86146

HBAGP
86185

Hepatitis B Virus Surface Antigen Prenatal, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.9 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum SST	Frozen (preferred)	90 days	
	Refrigerated	6 days	
	Ambient	72 hours	

CPT Code Information: 87340; 87341 (if appropriate);

GAL3
86202

Galectin-3, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen (preferred)	365 days
	Refrigerated	24 hours

CPT Code Information: 82777

FDP1
86207

Food Panel #2, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HEVG
86211

Hepatitis E Virus IgG Antibody, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	
	Refrigerated	24 hours

CPT Code Information: 86790

HEVM
86212

Hepatitis E Virus IgM Antibody Screen with Reflex to Confirmation, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	
	Refrigerated	24 hours

CPT Code Information: 86790

HYOX
86213

Hyperoxaluria Panel, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 10 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. 3. Immediately freeze specimen.

Specimen Minimum Volume: 1.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	90 days
	Refrigerated	14 days

CPT Code Information: 82542

LEIS
86219

Leishmaniasis (Visceral) Antibody, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.2 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86717

WMEL
86304

Watermelon, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

RASP
86305

Raspberry, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

OLIVF
86306

Olive-Food, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CRANB
86307

Cranberry, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SOLEF
86310

Sole, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

LINS
86311

Linseed, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

SPIN
86312

Spinach, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ASPG
86324

Aspergillus niger, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

GELA
86326

Gelatin, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CABB
86327

Cabbage, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

INHAB
86336

Inhibin A and B, Tumor Marker, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 83520-Inhibin B; 86336-Inhibin A;

PARVP
86337

Parvovirus B19, Molecular Detection, PCR, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

HITIG 86533 Heparin-PF4 IgG Antibody, Serum

Specimen Requirements: Patient Preparation: Fasting: 8 hours, preferred but not required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top Submission Container/Tube: 13-mm x 75-mm, 5-mL, plastic vial (polypropylene preferred) Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial. Specimen Stability Information: Frozen (preferred) 2 years/Refrigerate 7 days

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen (preferred)	
	Refrigerated	7 days

CPT Code Information: 86022

SABP 86537 Streptococcal Antibodies Profile, Serum

Specimen Requirements: Patient Preparation: Fasting: 8 hours, preferred but not required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 86060; 86215;

FDERM
87283

Fungal Culture, Dermal

Specimen Requirements: Note: -Aseptic techniques should be used when collecting specimens to minimize contamination. -For optimal recovery of organisms, sufficient clinical material should be collected. Specimen Type: Hair Container/Tube: Dry sterile container or specimen collection envelope Specimen Volume: 10 to 12 Collection Instructions: Using forceps collect affected hairs with base of the shaft intact. Specimen Type: Nails Container/Tube: Dry sterile container or specimen collection envelope Specimen Volume: Entire collection Collection Instructions: 1. Wipe the nail with 70% alcohol using gauze (not cotton). 2. Clip away a generous portion of the affected area. 3. Collect material or debris from under the nail. Specimen Type: Skin Container/Tube: Dry sterile container or specimen collection envelope Specimen Volume: Entire specimen Collection Instructions: 1. Cleanse the affected area with 70% alcohol. 2. Gently scrape the surface of the skin at the active margin of the lesion, being careful to not draw blood.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	7 days

CPT Code Information: 87101-Fungal culture, dermal; 87106-Id MALDI-TOF Mass Spec Yeast (if appropriate); 87107-Id MALDI-TOF Mass Spec Fungi (if appropriate); 87107-Fungal identification panel A (if appropriate); 87107-Fungal identification panel B (if appropriate); 87153-D2 fungal sequencing identification (if appropriate); 87153-ITS Fungal Sequencing (if appropriate);

SSF1
87294

Nocardia Stain, Varies

Specimen Requirements: Container/Tube: Sterile container Specimen Volume: 0.2 mL Collection Instructions: Collect a raw specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Ambient	7 days

CPT Code Information: 87206; 87176-Tissue processing (if appropriate);

CAH21
87815

Congenital Adrenal Hyperplasia (CAH) Profile for 21-Hydroxylase Deficiency, Serum

Specimen Requirements: Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: 1. Morning (8 a.m.) and afternoon (4 p.m.) specimens are preferred. 2. Include time of collection. 3. Centrifuge and aliquot serum into a plastic vial. Additional Information: If multiple specimens are collected, send a separate order for each specimen.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 82157; 82533; 83498;

SERU
87834

Serotonin, 24 Hour, Urine

Specimen Requirements: Patient Preparation: 1. For 48 hours before and during specimen collection, patient should not eat avocados, bananas, butternuts, cantaloupe, dates, eggplant, grapefruit, hickory nuts, honeydew melon, kiwifruit, melon, nuts, pecans, pineapple, plantains, plums, tomatoes, or walnuts, which are high in serotonin or tryptophan. 2. Patient should not take medications that may elevate serotonin levels, including lithium, monoamine oxidase inhibitors, methyldopa, morphine, and reserpine, or selective serotonin reuptake inhibitors (SSRI, eg, PROZAC) which can lead to depletion of platelet serotonin levels and result in false-negative serotonin results for a minimum of 72 hours before specimen collection. Some drugs with longer half-lives (i.e. fluoxetine) can require months after discontinuation for serotonin levels to return to baseline. 3. Patient should avoid heavy nicotine consumption during the 24-hour collection period. Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Add 25 mL of 50% acetic acid as preservative at start of collection. 2. Collect urine for a full 24 hours (required) and record the total volume. 3. Refrigerate specimen during collection. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	48 hours

CPT Code Information: 84260

RIB
87837

Ribosome P Antibodies, IgG, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83516

Q10
87853

Coenzyme Q10, Reduced and Total, Plasma

Specimen Requirements: Patient Preparation: Fasting: 8 hours, required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Green top (lithium or sodium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Plasma Collection Instructions: 1. Immediately after collection, place specimen on wet ice. Maintain on wet ice until processing. 2. Within 3 hours of collection, centrifuge, aliquot plasma into a plastic vial, and freeze immediately.

Specimen Minimum Volume: Plasma: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Heparin	Frozen	7 days

CPT Code Information: 82542

HCCAD
87858

Hepatitis C Virus Antibody Screen, Cadaveric or Hemolyzed Specimens, Asymptomatic, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	28 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 86803 ; G0472 (if appropriate for government payers); 86804 (if appropriate);

LCMAL
87860

Malaria, Molecular Detection, PCR, Varies

Specimen Requirements: Both blood specimens and slides are required. Specimen Type: Blood Container/Tube: Lavender top (EDTA) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send specimen in original tube. Do not aliquot. Specimen Type: Blood films Container/Tube: Clean, grease-free slides in plastic slide container Specimen Volume: 2 thin blood films and 2 thick blood films Collection Instructions: 1. For complete instructions, see Thick and Thin Blood Slide Preparation Instructions. 2. Ideally, blood films should be made directly from uncoagulated blood acquired via fingerstick. However, EDTA anticoagulated blood is also acceptable. 3. Prepare thin blood films as follows: a. Prepare a thin film with a "feathered edge" that is no more than a single cell thick. b. Allow the film to thoroughly air dry and then fix by briefly immersing in either absolute or 95% methyl alcohol. c. Allow to air dry after fixation. 4. Prepare thick blood films as follows: a. Place a large drop of blood (approximately the size of a dime and preferably from a fingerstick) on a slide. b. Using a corner of a second slide, spread the drop in a circular motion while applying firm pressure to literally scratch the blood onto the carrier slide. This technique allows the blood to dry quickly and adhere well to the slide. Use approximately 20 circular sweeps with the second slide. The drop of blood should be about the size of

a quarter when finished. c. Do not fix. Air dry thoroughly (approximately 45 minutes) before placing in transport container.

Specimen Minimum Volume: Blood: 1 mL Slides: See Specimen Required.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Ambient	7 days

CPT Code Information: 87798

HBABT
87893

Hepatitis B Virus Surface Antibody Monitor, Post-Transplant, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86317

TLCU
87934

Immunoglobulin Total Light Chains, Urine

Specimen Requirements: Submit only 1 of the following specimens: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Specimen Type: Random urine Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen. 2. Refrigerate after collection and send refrigerate. Specimen Type: 24-Hour urine Container/Tube: Plastic, 5-mL tube Specimen Volume: 1 mL Collection Instructions: 1. Collect urine for 24 hours. 2. No additive needed for preservation. 3. Urine may be kept

ambient during the collection period but should be refrigerated within 4 hours of collection completion. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	20 days
	Ambient	72 hours

CPT Code Information: 83883 x 2

IGAS
87938

IgA Subclasses, Serum

Specimen Requirements: Patient Preparation: Fasting: 12 hours, preferred but not required Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	7 days

CPT Code Information: 82784; 82787 x 2;

PBORB
87973

Lyme Disease, Molecular Detection, PCR, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87476; 87798 x 2; 87801 (if appropriate for government payers);

WHIPB
87974

Tropheryma whipplei, Molecular Detection, PCR, Blood

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Tropheryma whipplei DNA is unlikely. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Royal blue top (EDTA), pink top (EDTA), or sterile vial containing EDTA-derived aliquot Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube (preferred)

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	7 days

CPT Code Information: 87798

TACPK
88157

Tacrolimus, Peak, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Do not centrifuge. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 80197

BIOTS
88205

Biotinidase, Serum

Specimen Requirements: Patient Preparation: Fasting: 4 Hours, recommended but not required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	21 days
	Refrigerated	5 days

CPT Code Information: 82261

CORTC
88221

Corticosterone, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Morning (8 a.m.) specimen is preferred. 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82528

FCINS
88467

Flow Cytometry Interpretation, 16 or More Markers (Bill Only)

Specimen Requirements: Only to be ordered by pathology consultant. This test is for billing purposes only.

CPT Code Information: 88189

PREGN
88645

Pregnenolone, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen and immediately aliquot serum into a plastic vial. 2. Freeze immediately.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	28 days

CPT Code Information: 84140

17PRN
88646

Pregnenolone and 17-Hydroxypregnenolone, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	28 days

CPT Code Information: 84140-Pregnenolone; 84143-17-Hydroxypregnenolone;

AH50
88676

Alternative Complement Pathway, Functional, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86161

CRDPU
88697

Creatine Disorders Panel, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10 mL urine tube Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen. 2. Immediately freeze urine specimen. 3. If possible, do not send other tests ordered on same vial of urine. In doing so, the other tests may have increased turnaround time due to the strict frozen criteria of this assay.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen	29 days

CPT Code Information: 82540; 82570; 82542;

VORI
88698

Voriconazole, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80285

JAK2B
88715

JAK2 V617F Mutation Detection, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient (preferred)	7 days	PURPLE OR PINK TOP/EDTA
	Refrigerated	7 days	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81270-JAK2 (Janus kinase 2) (eg, myeloproliferative disorder) gene analysis, p.Val617Phe (V617F) variant

INHB
88722

Inhibin B, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 83520

PDSU
88760

Drug Screen, Prescription/Over the Counter, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	3 hours

CPT Code Information: 80307

IABCS
88800

B-Cell Phenotyping Profile for Immunodeficiency and Immune Competence Assessment, Blood

Specimen Requirements: Two separate EDTA whole blood specimens are required: 1 refrigerate and 1 ambient transport temperature. For serial monitoring, it is recommended that specimens are collected at the same time of day. Specimen Type: Whole blood for TBBS / Quantitative Lymphocyte Subsets: T, B, and Natural Killer (NK) Cells, Blood Container/Tube: 4 mL Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen as TBBS. 3. Ship ambient. Specimen Stability Information: Ambient <52 hours Specimen Type: Whole blood for IABC / B-Cell Phenotyping Screen for Immunodeficiency and Immune Competence Assessment, Blood Container/Tube: Lavender top (EDTA) Specimen Volume: < or =14 years: 4 mL >14 years: 10 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen IABC. 3. Ship refrigerate. Specimen Stability Information: Refrigerated <48 hours

Specimen Minimum Volume: TBBS: 1 mL; IABC: > 14 years: 5 mL; < or = 14 years: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Varies	48 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86355-B cells, total count; 86357-Natural killer (NK) cells, total count; 86359-T cells, total count; 86360-Absolute CD4/CD8 count with ratio; 86356 x7 - Mononuclear cell antigen, quantitative;

CIMRP
88804

Coccidioides immitis/posadasii, Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction

(PCR) requires the specimen to be processed in an environment in which contamination of the specimen by Coccidioides species DNA is unlikely. Preferred Specimens: Body fluid, cerebrospinal fluid (CSF), ocular fluid, respiratory (eg, bronchoalveolar lavage [BAL], bronchial washing, sputum), fresh tissue, or bone Acceptable Specimens: If no fresh specimen is available, digested respiratory specimens treated with N-acetyl-L-cysteine-sodium hydroxide (NALC/NaOH) are acceptable (eg, BAL, bronchial washing, respiratory fluid, sputum, or tracheal secretion) Submit only 1 of the following specimens: Specimen Type: Body fluid Sources: Body, ocular, or CSF Container/Tube: Sterile container Specimen Volume: 1 mL Additional Information: Only fresh, non-NALC/NaOH-digested body fluid is acceptable. Specimen Type: Respiratory Sources: BAL, bronchial washing, or sputum Container/Tube: Sterile container Specimen Volume: 1 mL if only PCR ordered or 3 mL if PCR ordered with smear and culture Specimen Type: Tissue Sources: Fresh tissue or bone Container/Tube: Sterile container Specimen Volume: 5 to 10 mm Collection Instructions: Keep moist with sterile water or sterile saline Additional Information: Only fresh, non-NALC/NaOH-digested tissue is acceptable. Acceptable Specimen Type: NALC/NaOH-digested respiratory specimens Sources: BAL, bronchial washing, respiratory fluid, sputum, or tracheal secretion Container/Tube: Sterile container Specimen Volume: 2 mL Collection Instructions: 1. Submit digested specimen treated with NALC/NaOH. 2. Clearly indicate on container and order form that specimen is a digested specimen.

Specimen Minimum Volume: Body fluid or nondigested respiratory specimen: 0.5 mL; Fresh tissue or bone: 5 mm; NALC-NaOH-digested specimen: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

F81P 88806 Hemophilia A F8 Gene, Intron 1 Inversion Known Mutation Analysis, Prenatal

Specimen Requirements: Results will be reported and telephoned or faxed, if requested. Submit only 1 of the following specimens: Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 5-10 mL Collection Instructions: 1. Optimal timing for specimen collection is during 14 to 18 weeks of gestation, but specimens collected at other weeks of gestation are also accepted. 2. Discard the first 2 mL of amniotic fluid. If the culture will be performed in conjunction with chromosome analysis and alpha-fetoprotein, a total of approximately 25 to 30 mL will be needed for the combined studies. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated Additional Information: 1. Place the tubes in a Styrofoam container. 2. Fill remaining space with packing material. 3. Unavoidably, about 1% to 2% of mailed-in specimens are not viable. 4. Bloody specimens are undesirable. 5. If the specimen does not grow in culture, you will be notified within 7 days of receipt. 6. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. 7. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Supplies: CVS Media (RPMI) and Small Dish (T095) Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20-30 mg Collection Instructions: 1. Collect specimen by the transabdominal or transcervical method. 2. Transfer the chorionic villi specimen to a Petri dish containing

transport medium. 3. Using a stereomicroscope and sterile forceps, assess the quality and quantity of the villi and remove any blood clots and maternal decidua. Specimen Stability Information: Refrigerated (preferred) <24 hours/Ambient Additional Information: 1. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing, Chorionic Villi/Products of Conception/Tissue. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 2. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 Flasks approximately 90% confluent Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated Additional Information: All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Amniotic fluid: See Specimen Required; Chorionic villi: 5 mg

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81403

MTBRP
88807

Mycobacterium tuberculosis Complex, Molecular Detection, PCR, Varies

Specimen Requirements: Submit a raw clinical sample (not a culture isolate) for testing. Fresh, undigested specimens are preferred. If no fresh specimen is available, digested respiratory specimens treated with N-acetyl-L-cysteine/sodium hydroxide (NALC/NaOH) are acceptable for some specimen types. For detailed information, see the Specimen Type information below. The high sensitivity of amplification by polymerase chain reaction (PCR) requires the specimen to be processed in an environment in which contamination of the specimen by Mycobacterium tuberculosis DNA is unlikely. If a single specimen is being shared between mycobacteria culture, acid-fast smear, and/or M tuberculosis PCR, a minimum volume of 2 mL for body fluid, 3 mL for respiratory specimen, or a pea-sized piece of tissue should be obtained. Specimen volumes less than indicated may decrease sensitivity of testing. If insufficient volume is submitted, test or tests will be canceled. Submit only 1 of the following specimens: Preferred Specimen Types Specimen Type: Body fluid Sources: Body, bone marrow aspirate, ocular, or CSF Container/Tube: Sterile container Specimen Volume: 1 mL Additional Information: Only fresh, non-NALC/NaOH-digested body fluids are acceptable. Specimen Type: Gastric washing Container/Tube: Sterile container Specimen Volume: 2 mL Specimen Type: Respiratory Sources: BAL, bronchial washing, tracheal secretion, or sputum Container/Tube: Sterile container Specimen Volume: 1 mL if only PCR ordered or 3 mL if PCR ordered with smear and culture Additional Information: Before collecting sputum specimens, see Ordering Guidance. Specimen Type: Feces Container/Tube: Sterile container Specimen Volume: 5 to 10 g Additional Information: Only fresh, non-NALC/NaOH-digested fecal specimens are acceptable. Specimen Type: Tissue Sources: Fresh tissue, bone, or bone marrow biopsy Container/Tube: Sterile container Specimen Volume: 5 to 10 mm Collection Instructions: Keep moist with sterile water or sterile saline Additional Information: Only fresh, non-NALC/NaOH-digested tissue is acceptable. Specimen Type: Urine Container/Tube: Sterile container Specimen Volume: 1 mL Collection Instructions: Collect a random urine specimen. Acceptable Specimen Types Specimen Type: NALC/NaOH-digested respiratory specimens Sources: Lavage fluid, bronchial washing, gastric washing,

respiratory fluid, sputum, or tracheal secretion Container/Tube: Sterile container Specimen Volume: 2 mL Collection Instructions: 1. Submit digested specimen treated with NALC/NaOH. 2. Clearly indicate on container and order form that specimen is a digested specimen.

Specimen Minimum Volume: Body fluid, nondigested respiratory specimen, urine: 0.5 mL; Fresh tissue or bone: 5 mm; NALC-NaOH-digested specimen, gastric washing: 1 mL; Stool: 5 g

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87556-Mycobacterium tuberculosis, complex, molecular detection, PCR; 87015-Mycobacteria culture, concentration (if appropriate);

CMVC8
88826

Cytomegalovirus (CMV) CD8 T-Cell Immune Competence, Quantitative Assessment by Flow Cytometry, Blood

Specimen Requirements: Supplies: Ambient Shipping Box-Critical Specimens Only (T668) Container/Tube: Green top (sodium heparin) Specimen Volume: 20 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimens are collected at the same time of day.

Specimen Minimum Volume: 10 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
WB Sodium Heparin	Ambient	48 hours	GREEN TOP/HEP

CPT Code Information: 86356 x 6; 86359; 86352;

C4U
88829

C4 Acylcarnitine, Quantitative, Random, Urine

Specimen Requirements: Patient Preparation: If clinically feasible, discontinue L-carnitine supplementation at least 72 hours before specimen collection. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10 mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. Freeze specimen immediately.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	7 days
	Refrigered	24 hours

CPT Code Information: 82017

C5OHU
88830

C5-OH Acylcarnitine, Quantitative, Random, Urine

Specimen Requirements: Patient Preparation: If clinically feasible, discontinue L-carnitine supplementation at least 72 hours before specimen collection. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. Freeze specimen immediately.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	7 days
	Refrigerated	24 hours

CPT Code Information: 82017

C5DCU
88831

C5-DC Acylcarnitine, Quantitative, Random, Urine

Specimen Requirements: Patient Preparation: If clinically feasible, discontinue L-carnitine supplementation at least 72 hours before specimen collection. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. Freeze specimen immediately.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	7 days
	Refrigerated	24 hours

CPT Code Information: 82017

FMB
88841

Fetomaternal Bleed, Flow Cytometry, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Fill evacuated tube as completely as possible. 2. Do not centrifuge. 3. Invert several times to mix blood. 4. Send whole blood specimen in original tube. Do not aliquot as aliquoting into or out of a sample tube can adversely affect test results.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Refrigerated (preferred)	5 days	
	Ambient	5 days	

CPT Code Information: 88184-Flow cytometry, cell surface, cytoplasmic

L3AFP
88878

Alpha-Fetoprotein (AFP) L3% and Total, Hepatocellular Carcinoma Tumor Marker, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum Gel Acceptable: Red Top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	180 days
	Refrigerated	5 days

CPT Code Information: 82107

PEE
88886

Porphyrins Evaluation, Whole Blood

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient must not consume any alcohol. Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA), dark blue top (metal free heparin), royal blue top (metal free EDTA), green top (lithium heparin) Specimen Volume: 4 mL Collection Instructions: Immediately place specimen on wet ice.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated	7 days

CPT Code Information: 84311; 82542-if appropriate;

ALLOI
88888

Allo-isoleucine, Blood Spot

Specimen Requirements: Supplies: -Card-Blood Spot Collection (Filter Paper) (T493) -Card-Postmortem Screening (Filter Paper) (T525) Container/Tube: Preferred: Blood Spot Collection (Filter Paper) Acceptable: Local newborn screening card, Whatman Protein Saver 903 filter paper, PerkinElmer 226 filter paper, Munktell filter paper, Postmortem Screening Card Specimen Volume: 2 Blood spots Collection Instructions: 1. Do not use device or capillary tube containing EDTA to collect specimen. 2. At least 1 spot should be complete and unpunched. 3. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 4. Include type of feeding information on the collection card. 5. Let blood dry on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 6. Do not expose specimen to heat or direct sunlight. 7. Do not stack wet specimens. 8. Keep specimen dry. Additional Information: 1. For collection instructions see Blood Spot Collection Instructions. 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800).

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	59 days	FILTER PAPER
	Frozen	59 days	FILTER PAPER
	Refrigerated	59 days	FILTER PAPER

CPT Code Information: 82136

CELI
88906

Celiac Associated HLA-DQ Alpha 1 and DQ Beta 1 DNA Typing, Blood

Specimen Requirements: Container/Tube: Yellow top (ACD Solution A or B) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 81376 x 2-HLA Class II typing, low resolution (eg, antigen equivalents); one locus (eg, HLA-DRB1/3/4/5, -DQB1, -DQA1, -DPB1, or -DPA1), each; ;

ALAD
88924

Aminolevulinic Acid Dehydratase, Whole Blood

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient must not consume any alcohol. This is essential as ethanol suppresses aminolevulinic acid dehydratase activity, leading to false-positive results. Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) or green top (lithium heparin) Specimen Volume: 4 mL; full tube Collection Instructions: Refrigerate specimen as soon as possible.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	7 days
	Ambient	4 days

CPT Code Information: 82657

PBGD_
88925

Porphobilinogen Deaminase, Whole Blood

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient must not consume any alcohol. This is essential as ethanol induces porphobilinogen deaminase activity,

which may lead to a false-normal result. Container/Tube: Preferred: Green top (sodium heparin) Acceptable: Lavender top (EDTA) or green top (lithium heparin) Specimen Volume: 4 mL; full tube Collection Instructions: Refrigerate specimen as soon as possible.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	8 days
	Ambient	7 days

CPT Code Information: 82657

BADX
89006

BCR::ABL1, Qualitative, Diagnostic Assay, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: Whole blood: 8 mL; Bone marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	5 days	PURPLE OR PINK TOP/EDTA
	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81206; 81207; 81208;

BCRAB
89007

BCR::ABL1, p210, mRNA Detection, Reverse Transcription-PCR (RT-PCR), Quantitative, Monitoring Chronic Myeloid Leukemia (CML), Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen

Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: Whole blood: 4 mL; Bone marrow: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	72 hours	PURPLE OR PINK TOP/EDTA
	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81206

BCLL
89008

IGH Somatic Hypermutation Analysis, B-Cell Chronic Lymphocytic Leukemia (B-CLL), Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Stability: Refrigerated (preferred) 7 days/Ambient 7 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability: Ambient (preferred) 7 days/Refrigerate 7 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Extracted DNA from whole blood or bone marrow Container/Tube: 1.5- to 2-mL screw-top tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted from blood or bone marrow within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen 3. Provide volume and concentration of the DNA Specimen Stability Information: Frozen (preferred)/Refrigerate/Ambient Additional Information: 1. Specimens are preferred to be received within 1 year after DNA extraction. 2. DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood/Bone marrow: 1 mL; Extracted DNA: 50 mcL at a concentration of 20 ng/mcL.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81263-IGH (immunoglobulin heavy chain locus) (eg, leukemia and lymphoma, B-cell), variable region somatic mutation analysis

CD40
89009

B-Cell CD40 Expression by Flow Cytometry, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimens are collected at the same time of day.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 88184

BTK
89011

Bruton Tyrosine Kinase, Protein Expression, Flow Cytometry, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 4 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	48 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 88184

DAGL
89029

Gliadin (Deamidated) Antibody, IgA, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86258

DGGL
89030

Gliadin (Deamidated) Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86258

DGLDN
89031

Gliadin (Deamidated) Antibodies Evaluation, IgG and IgA, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86258 x 2

ENAE
89035

Antibody to Extractable Nuclear Antigen Evaluation, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86235 x 6

FXCH
89042

Coagulation Factor X Chromogenic Activity Assay, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85260

HCMM
89047

Homocysteine (Total), Methylmalonic Acid, and Methylcitric Acid, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card (Filter Paper) Acceptable: Local newborn screening card, Whatman Protein Saver 903 filter paper, PerkinElmer 226 filter paper, Munktell filter paper Specimen Volume: 2 Blood spots Collection Instructions: 1. Do not use device or capillary tube containing EDTA or ACD to collect specimen. Sodium heparin is acceptable but must be spotted on card the same day as collected. 2. Completely fill at least 2 circles on the filter paper card (approximately 100 microliters blood per circle) using blood from a heel or finger stick. 3. Let blood dry on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions. 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800).

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	FILTER PAPER	
	Frozen	FILTER PAPER	
	Refrigerated	FILTER PAPER	

CPT Code Information: 83090; 83918;

PCPMC
89069

Phencyclidine (PCP) Confirmation, Meconium

Specimen Requirements:

Specimen Minimum Volume: 0.3 g (approximately 1/4 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen (preferred)	28 days
	Ambient	28 days
	Refrigerated	28 days

CPT Code Information: G0480; 83992 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

LADV
89074

Adenovirus, Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Body fluid Sources: Pleural, peritoneal, ascites, pericardial, or amniotic Container/Tube: Sterile container Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Respiratory Sources: Bronchial washing, bronchoalveolar lavage, nasopharyngeal aspirate or washing, sputum, or tracheal aspirate Container/Tube: Sterile container Specimen Volume: 1 mL Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Stool Supplies: Stool Collection Kit, Random (T635) Container/Tube: Sterile container Specimen Volume: 1 g Specimen Type: Swab Sources: Nasal, throat, respiratory, genital, or ocular Supplies: -Culturette (BBL Culture Swab) (T092) -BD E-Swab (T853) -M4-RT (T605) Container/Tube: Multimicrobe media (M4-RT, M4, M5, Bartels, or Jiangsu) and E-Swab or Culturette Specimen Volume: Entire specimen Collection Instructions: Place swab back into a multimicrobe media. Specimen Type: Tissue Supplies: M4-RT (T605) Container/Tube: Sterile container containing 1 mL to 2 mL of sterile saline or multimicrobe medium (M4-RT, M4, M5, Bartels, or Jiangsu) Specimen Volume: Entire collection Collection Instructions: Collect fresh tissue specimen. Specimen Type: Urine Container/Tube: Sterile container Specimen Volume: 1 mL Collection Instructions: Collect a random urine specimen.

Specimen Minimum Volume: Body fluid and respiratory specimens: 0.5 mL Spinal fluid and urine: 0.3 mL Stool: 0.5 g Swab or Tissue: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

GLURA
89115

Glucose, Random, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 82947

MNB
89120

Manganese, Blood

Specimen Requirements: ***This specimen container cannot be opened or used for any other testing before shipping.*** Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free EDTA 3 mL Tube (T989) -Metal Free B-D Tube (EDTA), 6 mL (T183) Container/Tube: Preferred: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (BD catalog no. 367777) (T989) Acceptable: Royal blue-top BD Vacutainer Plus with EDTA blood collection tube (6 mL) (BD catalog no. 368381) (T183) Specimen Volume: 1 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83785

JAKXB
89189

JAK2 Exon 12 and Other Non-V617F Mutation Detection, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 8 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	5 days	PURPLE OR PINK TOP/EDTA
	Ambient	5 days	PURPLE OR PINK TOP/EDTA

CPT Code Information: 0027U-JAK2 (Janus kinase 2) (eg, myeloproliferative disorder), exon 12 sequence and exon 13 sequence, if performed

VLTB
89190

Volatile Screen, Blood

Specimen Requirements: Container/Tube: Preferred: Gray top (potassium oxalate/sodium fluoride) Acceptable: Lavendar top (EDTA) or green top (sodium heparin) Specimen Volume: 2 mL Collection Instructions: 1. Do not use alcohol to clean arm. Use alternatives such as Betadine to cleanse arm before collecting any specimen for volatile testing. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.5 mL or amount to fill 1 tube

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	24 hours

CPT Code Information: G0480; 80320 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

CDSP
89199

Celiac Disease Serology Cascade, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	21 days

CPT Code Information: 82784; 86258 (if appropriate); 86364 (if appropriate); 86231 (if appropriate);

CDGF
89200

Celiac Disease Gluten-Free Cascade, Serum and Whole Blood

Specimen Requirements: Both whole blood and serum are required. Specimen Type: Whole Blood Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: No additional anticoagulants are acceptable. Specimen Volume: 6 mL Collection Instructions: Send whole blood in original tube. Do not aliquot. Specimen Type: Serum Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial

Specimen Minimum Volume: Blood: 3 mL Serum: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days
Whole Blood ACD-B	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 81376 x 2; 82784 (if appropriate); 86258 (if appropriate); 86364 (if appropriate); 86231 (if appropriate);

CDCOM
89201

Celiac Disease Comprehensive Cascade, Serum and Whole Blood

Specimen Requirements: Both whole blood and serum are required. Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: No additional anticoagulants are acceptable. Specimen Volume: 6 mL Collection Instructions: Send whole blood in original tube. Do not aliquot. Specimen Type: Serum Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Whole blood: 3 mL; Serum: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	21 days
Whole Blood ACD-B	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 81376 x 2; 82784; 86258 (if appropriate); 86364 (if appropriate); 86231 (if appropriate);

MOLPS
89270

Molybdenum, Serum

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for at least 96 hours. Supplies: -Metal Free B-D Tube (No Additive), 6 mL (T184) -Metal Free Specimen Vial (T173) Collection Container/Tube: Plain, royal blue-top Vacutainer plastic trace element blood collection tube Submission Container/Tube: 7-mL Mayo metal-free, screw-capped, polypropylene vial Specimen Volume: 0.25 mL Serum Collection Instructions: 1. Allow specimen to clot for 30 minutes; then centrifuge the specimen to separate serum from the cellular fraction. 2. Remove the stopper. Carefully pour specimen into a Mayo metal-free, polypropylene vial, avoiding transfer of the cellular components of blood. Do not insert a pipet into the serum to accomplish transfer, and do not ream the specimen with a wooden stick to assist with serum transfer. 3. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	14 days	METAL FREE
	Ambient	14 days	METAL FREE
	Frozen	14 days	METAL FREE

CPT Code Information: 83018

GDS
89299

Gadolinium, Serum

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered a specimen should not be collected for at least 96 hours. Supplies: Metal Free Specimen Vial (T173) Collection Container/Tube: Plain, royal blue-top Vacutainer plastic trace element blood collection tube Submission Container/Tube: 7-mL Mayo metal-free, screw-capped, polypropylene vial Specimen Volume: 0.35 mL Serum Collection Instructions: 1. Allow the specimen to clot for 30 minutes; then centrifuge the specimen to separate serum from the cellular fraction. 2. Remove the stopper. Carefully pour specimen into Mayo metal-free, screw-capped vial, avoiding transfer of the cellular components of blood. Do not insert a pipette into the serum to accomplish transfer, and do not ream the specimen with a wooden stick to assist with serum transfer. 3. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	28 days	METAL FREE
	Ambient	28 days	METAL FREE
	Frozen	28 days	METAL FREE

CPT Code Information: 83018

GDU
89301

Gadolinium, 24 Hour, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for at least 96 hours. Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 0.35 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83018

GLIC
89317

CD8 T-Cell Immune Competence, Global, Blood

Specimen Requirements: Supplies: Ambient Shipping Box-Critical Specimens Only (T668) Container/Tube: Green top (sodium heparin) Specimen Volume: 15 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 10 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
WB Sodium Heparin	Ambient	48 hours	GREEN TOP/HEP

CPT Code Information: 86356 x 2

TREGS
89318

T-Cell Subsets, Regulatory (Tregs), Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimens are collected at the same time of day.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86359; 86361;

TCP
89319

T-Cell Subsets, Naive, Memory, and Activated, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: For serial monitoring, it is recommended that specimens are collected at the same time of day.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86356 x 7

TIS
89367

Titanium, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	28 days	METAL FREE
	Frozen	28 days	METAL FREE
	Ambient	7 days	METAL FREE

CPT Code Information: 83018

GLICP
89369

CD8 T-Cell Immune Competence Panel, Global, Whole Blood

Specimen Requirements: Two separate whole blood specimens, EDTA and (possibly 2 tubes) sodium heparin, are required. For serial monitoring, it is recommended that specimens are collected at the same time of day. Supplies: Ambient Shipping Box-Critical Specimens Only (T668) Specimen Type: EDTA whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen as TBBS / Quantitative Lymphocyte Subsets: T, B, and Natural Killer (NK) Cells, Blood Additional Information: For serial monitoring, it is recommended that specimen collection be performed at the same time of day. Specimen Type: Sodium heparin whole blood Container/Tube: Green top (sodium heparin) Specimen Volume: 15 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen as GLIC / CD8 T-Cell Immune Competence, Global, Blood

Specimen Minimum Volume: Sodium heparin whole blood: 10 mL EDTA whole blood: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
WB Sodium Heparin	Ambient	48 hours	GREEN TOP/HEP
Whole Blood EDTA	Ambient	52 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86355-B cells, total count ; 86357-Natural killer (NK) cells, total count ; 86359-T cells, total count ; 86360-Absolute CD4/CD8 count with ratio ; 86356 x 2;

F822P
89454

Hemophilia A F8 Gene, Intron 22 Inversion Mutation Analysis,

Prenatal

Specimen Requirements: Results will be reported and telephoned or faxed if requested. Submit only 1 of the following specimens: Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 5 to 10 mL Collection Instructions: 1. Optimal timing for specimen collection is during 14 to 18 weeks of gestation, but specimens collected at other weeks of gestation are also accepted. 2. Discard the first 2 mL of amniotic fluid. If the culture will be performed in conjunction with chromosome analysis and alpha-fetoprotein, a total of approximately 25 to 30 mL will be needed for the combined studies. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated Additional Information: 1. Place the tubes in a Styrofoam container. 2. Fill remaining space with packing material. 3. Unavoidably, about 1% to 2% of mailed-in specimens are not viable. 4. Bloody specimens are undesirable. 5. If the specimen does not grow in culture, you will be notified within 7 days of receipt. 6. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. 7. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Supplies: CVS Media (RPMI) and Small Dish (T095) Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 to 30 mg Collection Instructions: 1. Collect specimen by the transabdominal or transcervical method. 2. Transfer the chorionic villi specimen to a Petri dish containing transport medium. 3. Using a stereomicroscope and sterile forceps, assess the quality and quantity of the villi and remove any blood clots and maternal decidua. Specimen Stability Information: Refrigerated (preferred) <24 hours/Ambient Additional Information: 1. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 2. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 flasks approximately 90% confluent Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated Additional Information: All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Amniotic fluid: See Specimen Required Chorionic villi: 5 mg

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Varies		

CPT Code Information: 81403

21DOC
89477

21-Deoxycortisol, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Morning (8 a.m.) specimen is preferred. 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days
	Ambient	14 days

CPT Code Information: 82542

CD4RT
89504

CD4 T-Cell Recent Thymic Emigrants, Blood

Specimen Requirements: Supplies: Ambient Shipping Box-Critical Specimens Only (T668) Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	48 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86356

199PC
89508

Carbohydrate Antigen 19-9 (CA 19-9), Pancreatic Cyst Fluid

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Source: Pancreatic cyst or pancreatic pseudocyst Container/Tube: Plain, plastic, screw-top tube Specimen Volume: 1 mL

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Pancreatic Cyst Fluid	Frozen (preferred)	90 days
	Refrigerated	7 days
	Ambient	72 hours

CPT Code Information: 86301

CEAPC
89509

Carcinoembryonic Antigen (CEA), Pancreatic Cyst Fluid

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plain, plastic, screw-top tube Specimen Volume: 1 mL

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Pancreatic Cyst Fluid	Frozen (preferred)	90 days
	Refrigerated	72 hours
	Ambient	24 hours

CPT Code Information: 82378

CDOMB
89539

Cadmium for Occupational Monitoring, Blood

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free EDTA 3 mL Tube (T989) -Metal Free B-D Tube (EDTA), 6 mL (T183) Container/Tube: Preferred: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (BD catalog no. 367777) (T989) Acceptable: Royal blue-top BD Vacutainer Plus with EDTA blood collection tube (6 mL) (BD catalog no. 368381) (T183) Specimen Volume: 1 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions. 2. Send whole blood specimen in original collection tube. Do not aliquot.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82300

LEGRP
89564

Legionella species, Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Legionella DNA is unlikely. Specimen Type: Lower respiratory Sources: Bronchoalveolar lavage, bronchial aspirate/brushing/lavage/washing, tracheal/endotracheal secretions/aspirate, sputum Container/Tube: Sterile container Specimen Volume: 1 mL Specimen Type: Fresh tissue or biopsy Sources: Lung, pleura, heart valve, pericardium Container/Tube: Sterile container Specimen Volume: Entire collection or 5 mm(3) - approximately the size of a pencil eraser Collection Instructions: Aseptically collect a 1 to 2 cm(3) piece of tissue whenever possible Specimen type: Fluid Sources: Pericardial, pleural, chest, chest tube drainage, thoracentesis, empyema Container/Tube: Sterile container Specimen Volume: 1 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87801

CD20B
89584

CD20 on B Cells, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Additional Information: 1. Secondary aliquot tubes will be rejected. 2. Testing will be canceled if the specimen is not received ambient. 3. For serial monitoring, it is recommended that specimens are collected at the same time of day.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	4 days	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86355; 86356;

POSA
89591

Posaconazole, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL serum Collection Instructions: Within 2 hours of collection, centrifuge, and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80187

6MAMU
89605

6-Monoacetylmorphine Confirmation, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container Tube: Plastic urine container Specimen Volume: 10 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test.

Specimen Minimum Volume: 2.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: G0480; 80356 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

BAKDM
89609

BCR::ABL1, Tyrosine Kinase Inhibitor Resistance, Kinase Domain Mutation Screen, Sanger Sequencing, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Label specimen as blood. 3. Send whole blood specimen in

original tube. Do not aliquot. Acceptable: Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Whole blood: 8 mL; Bone marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	5 days	PURPLE OR PINK TOP/EDTA
	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81170-ABL1 (ABL proto-oncogene 1, non-receptor tyrosine kinase)(eg, acquired imatinib tyrosine kinase inhibitor resistance), gene analysis, variants in the kinase domain

CFRC
89653

Bacterial Culture, Cystic Fibrosis, Respiratory

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Sputum, expectorated or induced Patient Preparation: Have the patient brush their teeth or gargle with water immediately prior to specimen collection. This reduces the number of contaminating oropharyngeal bacteria. Container/Tube: Sterile container Specimen Volume: Entire collection Acceptable: Specimen Type: Bronchial aspirate or washing, sinus aspirate, bronchoalveolar lavage, endotracheal, or tracheal Container/Tube: Sterile container Specimen Volume: Entire collection Specimen Type: Throat swab Supplies: -Culturette (BBL Culture Swab) (T092) -BD E-Swab (T853) Container/Tube: Culture transport swab (Dacron or rayon swab with aluminum or plastic shaft with either Stuart or Amies liquid medium), or ESwab

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated	48 hours

CPT Code Information: 87070-Bacteria, culture, cystic fibrosis, respiratory; 87077-Identification commercial kit (if appropriate); 87077-Ident by MALDI-TOF mass spec (if appropriate); 87077-Bacteria Identification (if appropriate); 87077-Additional Identification procedure (if appropriate); 87077-Identification Staphylococcus (if appropriate); 87077-Identification Streptococcus (if appropriate); 87147 x 1-3-Serologic agglut method 1 ident (if appropriate); 87147-Serologic agglut method 2 ident (if appropriate); 87147 x 4-Serologic agglut method 3 ident (if appropriate); 87147 x 2-6-Serologic Agglut Method 4 Ident (if appropriate); 87153-Aerobe Ident by sequencing (if appropriate); 87150-Identification by PCR (if appropriate);

FENTS
89654

Fentanyl, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2.3 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen (preferred)	28 days
	Refrigerated	14 days
	Ambient	72 hours

CPT Code Information: G0480; 80354 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

FENTU
89655

Fentanyl with Metabolite Confirmation, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this procedure. 3. Submitting less than 5 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 2.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	21 days

CPT Code Information: G0480; 80354 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

PMMIL
89656

Phosphomannomutase and Phosphomannose Isomerase, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) Specimen Volume: 6 mL Collection Instructions: Send specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood ACD	Refrigerated (preferred)	6 days	YELLOW TOP/ACD
	Ambient	6 days	YELLOW TOP/ACD

CPT Code Information: 82657

VIBC
89658

Vibrio Culture, Feces

Specimen Requirements: Patient Preparation: Patient should not use barium or bismuth for 7 to 10 days before specimen collection. Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of non-nutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S) Specimen Volume: Representative portion of fecal specimen Collection Instructions: 1. Collect fresh feces and submit 1 gram or 5 mL in container with transport medium. 2. Within 2 hours of collection, place feces in preservative. 3. Place vial in a sealed plastic bag.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 87046-Vibrio culture, stool; 87077-Identification by MALDI-TOF mass spec (if appropriate); 87077-Additional Identification Procedure (if appropriate); 87077-Bacteria Identification (if appropriate); 87153-Aerobe Ident by Sequencing (if appropriate);

6MAMM
89659

6-Monoacetylmorphine (6-MAM), Confirmation, Meconium

Specimen Requirements: Supplies: Stool container, Small (Random), 4 oz (T288) Container/Tube: Stool container Specimen Volume: 1 g (approximately 1 teaspoon) Collection Instructions: 1. Collect entire random meconium (newborn's first bowel movements) specimen. 2. Send specimen frozen. Additional Information: When refrigerated, a significant percentage of

6-monoacetylmorphine (MAM) will convert to morphine in less than 24 hours.

Specimen Minimum Volume: 0.3 g (approximately 1/4 teaspoon)

Transport Temperature:

Specimen Type	Temperature	Time
Meconium	Frozen	14 days

CPT Code Information: G0480; 80356 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

PLSD
89678

Lysosomal and Peroxisomal Disorders Screen, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: PerkinElmer 226 filter paper, Munktell filter paper, Whatman Protein Saver 903 paper, local newborn screening card, or blood collected in tubes containing ACD or EDTA and dried on acceptable filter paper Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Completely fill at least 2 circles on the filter paper card (approximately 100 microliters blood per circle). 3. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	90 days	FILTER PAPER
	Frozen	90 days	FILTER PAPER
	Ambient	28 days	FILTER PAPER

CPT Code Information: 83789

ASNA
89848

Arsenic, Nails

Specimen Requirements: Supplies: Hair and Nails Collection Kit (T565) Source: Fingernails or toenails Specimen Volume: 0.2 g Collection Instructions: 1. Prepare and transport specimen per the

instructions in the kit or see Collecting Hair and Nails for Metals Testing. 2. Clippings should be taken from all 10 fingernails or toenails.

Specimen Minimum Volume: 0.05 g

Transport Temperature:

Specimen Type	Temperature	Time
Nail	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 82175

HGNA
89856

Mercury, Nails

Specimen Requirements: Supplies: Hair and Nails Collection Kit (T565) Source: Fingernails or toenails Specimen Volume: 0.2 g Collection Instructions: 1. Prepare and transport specimen per the instructions in the kit or see Collecting Hair and Nails for Metals Testing. 2. Clippings should be taken from all 10 fingernails or toenails.

Specimen Minimum Volume: 0.05 g

Transport Temperature:

Specimen Type	Temperature	Time
Nail	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 83825

PBNA
89857

Lead, Nails

Specimen Requirements: Supplies: Hair and Nails Collection Kit (T565) Source: Fingernails or toenails Specimen Volume: 0.2 g Collection Instructions: 1. Prepare and transport specimen per the instructions in the kit or see Collecting Hair and Nails for Metals Testing. 2. Clippings should be taken from all 10 fingernails or toenails.

Specimen Minimum Volume: 0.05 g

Transport Temperature:

Specimen Type	Temperature	Time
Nail	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 83655

CDG
89891

Carbohydrate Deficient Transferrin for Congenital Disorders of Glycosylation, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.05 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	45 days
	Refrigerated	28 days
	Ambient	7 days

CPT Code Information: 82373

ENTP
89893

Enterovirus, Molecular Detection, PCR, Plasma

Specimen Requirements: Submit a raw clinical sample (not a culture isolate) for enterovirus polymerase chain reaction . Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Screw-capped, sterile container Specimen Volume: 1 mL Collection Instructions: Centrifuge blood collection tube and aliquot plasma into plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87498

SPNC
89971

Streptococcus pneumoniae Antigen, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: Submit specimen collected in vial 2, if possible. If not possible, note the vial from which the aliquot was obtained.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 87899

BARTB
89983

Bartonella, Molecular Detection, PCR, Blood

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Bartonella species DNA is unlikely. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Royal blue top (EDTA), pink top (EDTA), or sterile vial containing EDTA-derived aliquot Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube (preferred).

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	7 days

CPT Code Information: 87801

FHSAG
90017

MVista Histoplasma Ag Quantitative, Spinal Fluid

Specimen Requirements:

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	

CPT Code Information: 87385

FFLEX
90085

Cyclobenzaprine (Flexeril)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Specimen Type: Plasma Container/Tube: Green Top Specimen Volume: 2 mL Collection Instructions: Draw blood in a green-top (sodium heparin) tube, plasma gel tube is not acceptable. Spin down and send 2 mL of sodium heparin plasma refrigerated in a plastic vial. Serum Specimen Type: Serum Container/Tube: Red Specimen Volume: 2 mL Collection Instructions: Draw blood in a plain, red-top tube, serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 80369

FENC
90087

Encainide (Enkaid), ODE and MODE

Specimen Requirements: Submit only 1 of the following: Plasma Draw blood in a green-top

(sodium heparin) tube(s). Plasma gel tube is not acceptable. Spin down and send 1 mL of sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s). Serum gel tube is not acceptable. Spin down and send 1 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80299

FMEP
90090

Meperidine (Demerol) and Normeperidine, serum

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s). Plasma gel tube is not acceptable. Spin down and send 3 mL of sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s). Serum gel tube is not acceptable. Spin down and send 3 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80362

FFLUR
90091

Flurazepam (Dalmane) and Desalkylflurazepam

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL sodium heparin plasma frozen in plastic vial. Serum Draw blood in a plain, red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum frozen in plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Frozen	180 days

CPT Code Information: 80346

FBENZ
90092

Benztropine (Cogentin), Serum

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80299

FPHEG
90101

Promethazine (Phenergan)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 3 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain, red-top tube(s), serum gel tube is not acceptable. Spin down and send 3 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80342

FEPHD
90109

Ephedrine, Serum

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top sodium heparin tube(s), plasma gel tube is not acceptable. Spin down and send 3 mL sodium heparin plasma refrigerated in a plastic vial. If specimen is not light protected foil wrap specimen to protect from light. Serum Draw blood in a plain, red-top tube(s), serum gel tube is not acceptable. Spin down and send 3 mL of serum refrigerated in a plastic vial. If specimen is not light protected foil wrap specimen to protect from light.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	14 days	LIGHT PROTECTED
	Frozen	180 days	LIGHT PROTECTED
	Ambient	72 hours	LIGHT PROTECTED

CPT Code Information: 80324; G0480 (if appropriate);

FMIDZ
90112

Midazolam (Versed), serum

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80346; G0480 (if appropriate);

FDM
90117

Dextromethorphan (DM), Serum

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL sodium heparin refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days

CPT Code Information: 80362

FVIST
90121

Hydroxyzine (Vistaril, Atarax), Serum

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 3 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 3 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80299

FPTH
90182

PTH Antibody

Specimen Requirements: Specimen Type: Serum Collection Container/Tube: Red or SST Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Draw blood in a plain, red-top tube(s), serum gel tube(s) is acceptable. 2. Centrifuge and send 1 mL of serum ambient in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Ambient (preferred)	14 days
	Frozen	28 days
	Refrigerated	14 days

CPT Code Information: 83519

FBEN
90294

Benzene, Occupational Exposure, Blood

Specimen Requirements: Draw blood in a green-top (sodium heparin) tube(s) and send 20 mL in two tubes of sodium heparin whole blood refrigerated. Blood should be drawn at end of shift. Tubes should be filled to prevent loss of volatile compound into headspace.

Specimen Minimum Volume: 2.5 mL (in two tubes)

Transport Temperature:

Specimen Type	Temperature	Time
WB Sodium Heparin	Refrigerated (preferred)	14 days
	Frozen	365 days

CPT Code Information: 84600

FALBU
90309

Albuterol, Serum/Plasma

Specimen Requirements:

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	30 days
	Frozen	365 days
	Ambient	30 days

CPT Code Information: 80299

FURA
90316

Uranium, Urine

Specimen Requirements: ***Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Patient Preparation: For 48 hours before specimen collection, patient should avoid exposure to gadolinium-based contrast media. Supplies: NMS Acid Washed "Precleaned", 10 mL (T619) Container/Tube: Acid washed or trace metal free plastic container Specimen Volume: 1 mL Collection Instructions: 1. Collect urine in acid washed or trace metal free plastic container. 2. Submit 1 mL of urine refrigerated.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Urine	Refrigerated (preferred)	16 days	Acid Washed Plastic (MML Supply T619)
	Frozen	30 days	Acid Washed Plastic (MML Supply T619)
	Ambient	9 days	Acid Washed Plastic (MML Supply T619)

CPT Code Information: 83018

FRFIT
90330

Rabies Antibody Endpoint

Specimen Requirements: Specimen Type: Serum Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerate. Note: Collection date is required.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	60 days

CPT Code Information: 86382

FLIPR
90347

Lipase, Random Urine

Specimen Requirements: Container/Tube: Plastic urine container Specimen Volume: 2 mL Collection Instructions: Collect random urine without preservative. Ship 2 mL urine in a sterile screw capped plastic container ship ambient.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Ambient (preferred)	5 days
	Frozen	21 days
	Refrigerated	5 days

CPT Code Information: 83690

ZW51
90490

Miscellaneous Quest Testing

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW57
90496

Miscellaneous Esoterix Coagulation

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must

be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW58
90497

Miscellaneous Duke University

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW59
90498

Misc Esoterix Endocrinology

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW61
90500

Miscellaneous University of Minnesota Outreach Laboratory

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW68
90507

Miscellaneous Greenwood Genetic Ctr

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW69
90508

Miscellaneous Eurofins Viracor

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW71
90510

Miscellaneous Inter Science Institute

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW76
90515

Miscellaneous LabCorp of America

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW78
90517

Miscellaneous Medical Coll of WI

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW80
90519

Miscellaneous Medtox Laboratories, Inc.

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW83
90522

Miscellaneous Quest Diagnostics

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW85
90524

Miscellaneous National Jewish Health

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW86
90525

Miscellaneous NMS Testing

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW87
90526

Miscellaneous Palo Alto Testing

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW91
90530

Miscellaneous RFFIT Testing

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW99
90538

Miscellaneous Univ of AL-Metabolic Disease Lab

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW102
90541

Miscellaneous U of TX San Ant Test

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW111 Miscellaneous MiraVista Diagnostics
90550

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW113 Miscellaneous LabCorp-RTP,NC
90552

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW121
90560

Miscellaneous Versiti Blood Center of Wisconsin

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW127
90566

Miscellaneous Athena Testing

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW128
90567

Miscellaneous University Hospital Clinical Lab Test

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW131
90570

Miscellaneous Quest/Nichols Testing

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW140
90579

Miscellaneous Child Med Ctr Dallas

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW143
90582

Miscellaneous IMMCO Diagnostics

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW146
90585

Misc Prometheus Laboratories Test

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

CEASF
90695

Carcinoembryonic Antigen (CEA), Spinal Fluid

Specimen Requirements: Collection Container/Tube: Sterile vial Submission Container/Tube: 13 x 75-mm tube Specimen Volume: 0.5 mL Collection Instructions: Submit specimen from collection vial number 1.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 82378

VIGA
91089

Vigabatrin (Sabril)

Specimen Requirements: Submit only 1 of the following specimens Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 1 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 1 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80339

FBERY
91092

Beryllium, Blood

Specimen Requirements: Draw blood in a metal free, royal blue-top with EDTA tube(s). Send 2 mL of EDTA whole blood refrigerated.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA - Metal Free (ERB)	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 83018

FSTYR
91094

Styrene, Occupational Exposure, Blood

Specimen Requirements: Collect 2 tubes green-top (sodium heparin) whole blood. Send 20 mL

sodium heparin whole blood refrigerated. Collect specimen at end of shift or prior to next shift. Tubes should be filled to prevent loss of volatile compound into headspace.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
WB Sodium Heparin	Refrigerated (preferred)	14 days
	Frozen	180 days

CPT Code Information: 84600

FGLIP
91097

Glipizide (Glucotrol)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80299

FFTRU
91099

Trichloroacetic Acid, Urine

Specimen Requirements: Submit a 10 mL aliquot from a random or spot urine collected at end of shift, end of exposure, or end of workweek. Send specimen refrigerated.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	180 days

CPT Code Information: 83921-Organic acid, single, quantitative; 82570-Creatine, other source;

FFTIN
91101

Tin, Serum

Specimen Requirements: Submit only 1 of the following specimens: Serum Draw blood in a metal free tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of metal free serum refrigerated in a plastic vial. Plasma Draw blood in an EDTA metal-free royal blue-top tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL metal-free EDTA plasma refrigerated in a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 83018

FRISP
91105

Risperidone (Risperdal) and 9-Hydroxyrisperidone

Specimen Requirements: Submit only 1 of the following specimens: Plasma Specimen Type: Plasma (Preferred) Container/Tube: Green-top (sodium heparin) tube(s). Specimen volume: 3 mL Collection Instructions: Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 3 mL sodium heparin plasma refrigerated in a plastic vial. Serum Specimen Type: Serum Container/Tube: Red-top tube, serum gel is not acceptable. Specimen volume: 3 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 3 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80342

FCLON
91107

Clonidine (Catapres)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 5 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80299

FBUS
91115

Buspirone (Buspar)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 3 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 3 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80299

FDILT
91118

Diltiazem (Cardizem, Dilacor)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 3 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain, red-top tube(s), serum gel tube is not acceptable. Spin down and send 3 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80299

FFURO
91119

Furosemide (Lasix)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 1 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 1 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80299; ;

FMERC 91120 Mercaptopurine (6-MP, Purinethol)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain, red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80299

FHIPP 91121 Toluene as Hippuric Acid, Occupational Exposure, Urine

Specimen Requirements: 10 mL aliquot of random or spot urine collected at end of shift. Send specimen refrigerated. Tubes should be filled to prevent loss of volatile compound into headspace.

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	180 days

CPT Code Information: 83921; 82570; ;

FSOTA
91123

Sotalol (Betapace)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80299

FLNZ
91129

Olanzapine (Zyprexa)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.50 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80299

FAMAN
91132

Amantadine, Serum or Plasma

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Serum Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Serum Collection Instructions: 1. Centrifuge and aliquot 3 mL serum into a plastic vial. 2. Send refrigerate. Specimen Type: Plasma Collection Container/Tube: Green top (heparin) tube (plasma gel/PST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Plasma Collection Instructions: 1. Centrifuge and aliquot 3 mL plasma into a plastic vial. 2. Send refrigerate. Additional Information: 1. Trough levels are the most reproducible. 2. If storing specimens for more than 3 days, refrigerate or frozen storage is optimal.

Specimen Minimum Volume: Serum/Plasma: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	21 days
	Frozen	28 days
	Ambient	21 days

CPT Code Information: 80299

FPHEN
91136

Benzene as Phenol, Occupational Exposure, Urine

Specimen Requirements: Collect 10 mL random urine without preservatives. Ship refrigerated in a plastic container.

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	180 days

CPT Code Information: 82570/Creatinine; 84600/Volatiles;

FFTIB
91137

Tin, Blood

Specimen Requirements: Draw blood in a royal blue-top (metal free EDTA) tube. Send 2 mL metal free EDTA whole blood refrigerated.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA - Metal Free (ERB)	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 83018

FFTLB
91141

Toluene, Occupational Exposure, Blood

Specimen Requirements: Draw blood in 2 green top (sodium heparin) tubes. Tubes should be filled to prevent loss of volatile compound into headspace. Send 20 mL of sodium heparin whole blood refrigerated.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
WB Sodium Heparin	Refrigerated (preferred)	14 days
	Frozen	365 days

CPT Code Information: 84600

ZW149
91170

Misc Monogram Biosciences, Inc.

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FHPL
91178

Human Placental Lactogen (HPL)

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Specimen Type: Serum Container/Tube: Red top Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge at 3000 rpm for 10 minutes 2. Aliquot 1 mL of serum into a plastic vial and freeze immediately. 3. Send serum frozen.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen	90 days

CPT Code Information: 83632

ZW153
91213

Misc Center for Human Genetics

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FFES
91215

Estradiol Free, Serum (includes Estradiol and SHBG)

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel tube Submission Container/tube: Plastic vial Specimen Volume: 3 mL Serum Collection Instructions: 1. Within 45 minutes of collection, centrifuge and aliquot 3 mL of serum into a plastic vial. 2. Freeze immediately after separation and send frozen. Additional Information: To avoid delays when requesting multiple tests on frozen specimens, submit separate specimens for each test requested.

Specimen Minimum Volume: Serum: 1 mL; Note: This volume does not allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen (preferred)	180 days
	Ambient	48 hours
	Refrigerated	48 hours

CPT Code Information: 82681-Free Estradiol; 84270-Sex Hormone binding globulin; 82670-Estradiol;

ZW155
91272

Miscellaneous BioAgilytix Diagnostics

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW163
91291

Miscellaneous Children's Hospital of Philadelphia (CHOP)

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to

the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW166
91294

Miscellaneous Cincinnati Childs Hosp Center

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW168
91296

Miscellaneous GeneDx, Inc. Testing

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information,

family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW172
91302

Miscellaneous Center for Genetic Testing at St. Francis

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FHHV6
91311

Herpes Virus 6 (HHV-6) DNA, Qualitative Real-Time PCR

Specimen Requirements: Container/Tube: Lavender-top (EDTA) Specimen Volume: 1 mL Collection Instructions: Draw blood in lavender-top (EDTA) tube(s) and send 1 mL of whole blood refrigerated.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	48 hours

CPT Code Information: 87532

FCLNE
91321

Anti-Phosphatidylcholine Ab

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Serum Collection Instructions: 1. Allow specimen to clot for 30 minutes at room temperature. 2. Centrifuge and aliquot 3 mL of serum into a plastic vial. 3. Send frozen.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	14 days

CPT Code Information: 83520/x3

FPHET
91322

Anti-Phosphatidylethanolamine Panel

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Serum Collection Instructions: 1. Allow blood to clot for 30 minutes. 1. Centrifuge and aliquot 3 mL of serum into a plastic vial. 2. Send frozen.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	14 days

CPT Code Information: 83520 x 3

ZW175
91323

Miscellaneous Kennedy Krieger Institute

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FLEP
91339

Leptin

Specimen Requirements: Patient Preparation: Fasting: Recommended Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Specimen Volume: 1 mL Serum Collection Instructions: 1. Within 45 minutes of collection, centrifuge and aliquot serum into a plastic vial. 2. Send frozen.

Specimen Minimum Volume: Serum: 0.3 mL NOTE: Minimum volume does not allow for repeat analysis.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	
	Refrigerated	14 days
	Ambient	8 days

CPT Code Information: 83520

FSERT
91345

Sertraline (Zoloft) and Desmethylsertraline

Specimen Requirements: Submit only 1 of the following specimens: Plasma Specimen Type: Plasma Container/Tube: Green Top Specimen Volume: 2 mL Collection Instructions: Draw blood in a green-top (sodium heparin) tube, plasma gel tube is not acceptable. Spin down and send 2 mL of sodium heparin plasma refrigerated in a plastic vial. Serum Specimen Type: Serum Container/Tube: Red Specimen Volume: 2 mL Collection Instructions: Draw blood in a plain, red-top tube, serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80332

FISON
91349

Isoniazid (INH)

Specimen Requirements: Specimen Type: Serum Container/Tube: Red-top Specimen Volume: 2 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80299

ZW179
91403

Misc Medical Neurogenetics, LLC

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms

including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FBART
91439

Bartonella Antibody Panel, IFA CSF

Specimen Requirements: Container/Tube: Sterile container Specimen Volume: 1 mL Collection Instructions: 1. Submit 1 mL of spinal fluid (CSF). 2. Send refrigerate.

Specimen Minimum Volume: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86611 x 4

FINA
91447

NAbFeron (IFNB-1) Neutralizing Antibody Test

Specimen Requirements: Patient Preparation: Specimen should be collected either before treatment with interferon or more than 24 hours following the most recent dose. Patient should not be on steroid therapy for at least two weeks prior to testing. Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: 1. Within 48 hours of collection, centrifuge and aliquot 2 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 86382

FHTL
91491

HTLV I/II DNA, Qualitative Real-Time PCR

Specimen Requirements: Collection Container/Tube: Lavender-top (EDTA) Specimen Volume: 1 mL Collection Instructions: 1. Draw whole blood specimen in a lavender-top (EDTA) tube. 2. Send refrigerate.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	48 hours

CPT Code Information: 87798 x 2

F68KD
91494

68kD (hsp-70) antibodies by Line Blot

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Serum Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial. 2. Send frozen.

Specimen Minimum Volume: Serum: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	365 days
	Refrigerated	5 days
	Ambient	48 hours

CPT Code Information: 84182

FFTYC
91496

Collagen Type II antibody

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: 1. Draw blood in plain, red-top tube(s) or serum-gel tube(s). 2. Centrifuge and aliquot serum into a plastic vial. 3. Send refrigerated.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	365 days

CPT Code Information: 83520

FCIC
91497

Circulating Immune Complexes (CIC)

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Serum Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	365 days
	Ambient	14 days

CPT Code Information: 86332

FHLAA
91498

HLA A High Resolution

Specimen Requirements: Histocompatibility Lab Transplant Testing Requisition is required. Container/Tube: Lavender top (EDTA)Specimen Volume: 14 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Specify blood on the label 3. Send ambient.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Ambient	14 days

CPT Code Information: 81380

FHLAB
91499

HLA B High Resolution

Specimen Requirements: Histocompatibility Lab Transplant Testing Requisition is required. Container/Tube: Lavender top (EDTA) Specimen Volume: 14 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Specify blood on the tube label. 3. Send ambient.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Ambient	14 days

CPT Code Information: 81380

FHLAC
91500

HLA C High Resolution

Specimen Requirements: Histocompatibility Lab Transplant Testing Requisition is required. Container/Tube: Lavender top (EDTA) Specimen Volume: 14 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Specify blood on the label. 3. Send ambient.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Ambient	14 days

CPT Code Information: 81380

FAVI
91509

Hypersensitivity Pneumonitis Avian Panel

Specimen Requirements: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Serum Collection Instructions: 1. Centrifuge and aliquot 3 mL of serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	365 days

CPT Code Information: 86331x5

ZW187
91514

Miscellaneous University of Iowa Diagnostic Labs

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW186
91515

Miscellaneous University of Chicago Genetics Services

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information,

family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW185
91516

Miscellaneous Ambry Genetics

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FFT4F
91548

T4, Free, Direct Dialysis

Specimen Requirements: Patient Preparation: Fasting: 8-16 hours, preferred but not required Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collections Instructions: 1. Centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	35 days
	Ambient	4 days

CPT Code Information: 84439

FDM1
91592

DMPK DNA Test (DM1)

Specimen Requirements: Specimen Type: Whole Blood Container/Tube: Lavender top (EDTA) Specimen volume: 8 mL Pediatric (0-3 years) Volume: 2 mL (1 mL minimum) Collection instructions: 1. Draw blood in a lavender-top (EDTA) tube. 2. Invert several times to mix. 3. Send ambient Note: Collection date is required.

Specimen Minimum Volume: 6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Ambient (preferred)	10 days
	Refrigerated	10 days

CPT Code Information: 81234

ZW191
91599

Miscellaneous University of Texas Health Center at Tyler Microbiology

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW193
91601

Miscellaneous HNL Genomics

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW194
91602

Miscellaneous Prevention Genetics Lab

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW196
91643

Misc National Jewish Health Mycobacteriology Test

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FNMEN
91669

Neisseria Meningitidis IgG Vaccine Response

Specimen Requirements: Container/Tube: Preferred: Red top tube Acceptable: Serum gel tube Specimen Volume: 0.5 mL Collection Instructions: Draw blood in a plain red-top tube(s), serum gel tube(s) is acceptable. Spin down and send 0.5 mL of serum refrigerated in a plastic vial. Note: Serum gel tube is acceptable, but must pour off into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86317/x4

FLUPV
91714

Lupus Anticoagulant Evaluation with Reflex

Specimen Requirements: Collection Container/Tube: Light-blue top (3.2% sodium citrate) Submission Container/Tube: Plastic vial Specimen Volume: 3 mL platelet-poor plasma, in plastic vial Collection Instructions: Draw blood into a 3.2% sodium citrate (light blue-top) tube. Centrifuge light blue-

top tube 15 minutes at approx. 1500 g within 60 minutes of collection. Using a plastic pipette, remove plasma, taking care to avoid the WBC/platelet buffy layer and place into a plastic vial. Centrifuge a second time and transfer platelet-poor plasma into a new plastic vial. Plasma must be free of platelets (<10,000/mcl). Freeze immediately and ship on dry ice.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	30 days

CPT Code Information: 85613/ Russell viper venom time (includes venom); diluted; 85730/ Thromboplastin time, partial (PTT); plasma; 85598/ Platelet neutralization (Hexagonal Phase Confirm)-(if appropriate); 85597/ Platelet neutralization (dRVVT Confirm)-(if appropriate); 85613/dRVVT 1:1 Dilution (if appropriate); 85670/Thrombin Clotting Time (if appropriate); ;

FQUET
91727

Quetiapine (Seroquel)

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube not acceptable. Spin down and send 3 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 3 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80342

FCMVQ
91734

CMV by PCR

Specimen Requirements: 1 mL amniotic fluid shipped frozen.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Amniotic Fld	Frozen	180 days

CPT Code Information: 87497

FGLMA
91742

GlycoMark

Specimen Requirements: Submit only 1 of the following specimens: Serum Draw blood in a plain red-top tube(s), serum gel tube is acceptable. Spin down and send 1 mL of serum ambient in a plastic vial. Plasma Draw blood in a lavender-top (EDTA) tube(s). Spin down and send 1 mL of EDTA plasma ambient in a plastic vial.

Specimen Minimum Volume: 0.75 mL Note: This volume does not allow for repeat testing.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	7 days
	Frozen	14 days
	Refrigerated	14 days

CPT Code Information: 84378

FPFUZ
91755

Phenosense Entry HIV Drug Resistance Assay

Specimen Requirements:

Specimen Minimum Volume: 1.0 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	14 days

CPT Code Information: 87903

FPHIV
91756

Phenosense HIV Drug Resistance Replication Capacity

Specimen Requirements: Specimen Type: Plasma Container/Tube: Lavender-top (EDTA) or plasma preparation tube (PPT) Specimen Volumes: 3 mL Collection Instructions: Draw blood into two 5-mL PPT (pearl top) or EDTA (lavender top) tubes. Centrifuge specimen within 6 hours of collection. Transfer plasma to one or more polypropylene screw-capped tube(s) and freeze. Freeze immediately. Send 3 mL plasma in a screw-cap vial frozen. To avoid delays in turnaround time when requesting multiple tests, please submit separate frozen specimens for each test requested. RECOMMENDED: 1. Patient's most recent viral load. 2. Viral load collection date. NOTE: 1. Intended for use only for patients with viral loads greater than or equal to 500 copies/mL. For best results, viral loads should be confirmed within two weeks prior to submission for testing at Monogram. 2. Patient samples submitted <30 days apart are considered duplicate and will be canceled.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	14 days

CPT Code Information: 87903; 87904 x12;

FPGT
91757

Phenosense Combination HIV Drug Resistance Assay

Specimen Requirements:

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	14 days

CPT Code Information: 87900/Infectious agent drug susceptibility phenotype prediction; 87901/Infectious agent genotype analysis by nucleic acid; reverse transcriptase and protease; 87903/Infectious agent phenotype analysis by nucleic acid with drug resistance tissue culture analysis; first through 10 drugs tested; 87904/x12 Each additional drug tested;

FFTRP
91774

Trofile Co-Receptor Tropism Assay

Specimen Requirements:

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	14 days

CPT Code Information: 87999

FNALO
91784

Naloxone - Total (Conjugated/Unconjugated), Screen, Urine

Specimen Requirements: **Must submit one specimen per order. Specimens cannot be shared between multiple orders.*** Container/Tube: Plastic preservative-free urine container Specimen Volume: 1 mL Collection Instructions: 1. Collect 1 mL random urine specimen in a plastic preservative-free urine container. 2. Send refrigerate.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 80307; 80362 if appropriate; G0480 if appropriate;

FFLRO
91795

Flunitrazepam Confirmation, Serum

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 5 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 5 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	365 days
	Ambient	48 hours

CPT Code Information: 80346

ZW204
91801

Misc Cincinnati Childrens Hospital Medical Center

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW206
91803

Misc. Seattle Children's Hospital Laboratories

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FMETX
91822

Methsuximide (Celontin) as Desmethylmethsuximide

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80339

FAEAB
91854

Anti-Enterocyte Antibodies

Specimen Requirements: Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: 1. Centrifuge and aliquot 2 mL of serum into a plastic vial. 2. Send frozen.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen	

CPT Code Information: 88346; 88350 x 2; ;

ZW210
91857

Miscellaneous Univ of IA Molecular Otolaryngology

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW214
91861

Miscellaneous Ocular Immunology Laboratory OHSU

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

FBIOT
91902

Vitamin B7, H (Biotin)

Specimen Requirements: Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Amber vial Specimen Volume: 2 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge and aliquot 2 mL of serum into an amber vial to protect from light. 2. Send frozen.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Frozen (preferred)	14 days	LIGHT PROTECTED
	Refrigerated	7 days	LIGHT PROTECTED

CPT Code Information: 84591

FAZAT
91934

Azathioprine (Imuran) as 6-Mercaptopurine

Specimen Requirements: Submit only 1 of the following specimens: Plasma Draw blood in a green-top (sodium heparin) tube(s), plasma gel tube is not acceptable. Spin down and send 2 mL of sodium heparin plasma refrigerated in a plastic vial. Serum Draw blood in a plain, red-top tube(s), serum gel tube is not acceptable. Spin down and send 2 mL of serum refrigerated in a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Frozen	180 days
	Ambient	72 hours

CPT Code Information: 80299

FHST
91957

MVista Histoplasma Ag Quantitative EIA

Specimen Requirements: Specimen Type: Bronchial washing or body fluid Container/Tube: Sterile, leak-proof screw cap container Specimen Volume: 2 mL Collection Instructions: 1. Collect 2 mL of bronchial washing or body fluid in a sterile, leak-proof screw cap container. 2. Label with specimen type (required). 3. Send refrigerate. Note: 1. MiraVista will test most body fluids with the following disclaimer: The reference range and other method performance specifications have not been established for this test in this type of body fluid. The test results should be integrated into the clinical context for interpretation. 2. New York approved for Urine, Serum, Plasma, spinal fluid (CSF), and bronchoalveolar lavage (BAL) specimens.

Specimen Minimum Volume: Bronchial washing/Body fluid: 0.5 mL (Note: Minimum volume does not allow for repeats.)

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	

CPT Code Information: 87385

DMS2
92114

Dementia, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Requirements: Patient Preparation: 1. For optimal antibody detection, collect specimen before starting immunosuppressant medication or intravenous immunoglobulin treatment. 2. For 24 hours before specimen collection, patient should not receive general anesthetic or take muscle-relaxant drugs. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 21; 86341; 84182 AGNBS (if appropriate); 86256 AGNTS (if appropriate); 86255 AK5CS (if appropriate); 86256 AK5TS (if appropriate); 86256 AMPIS (if appropriate); 86256 APHTS (if appropriate); 84182 AMIBS (if appropriate); 84182 AN1BS (if appropriate); 86256 AN1TS (if appropriate); 84182 AN2BS (if appropriate); 86256 AN2TS (if appropriate); 86256 AN3TS (if appropriate); 86256 CRMTS (if appropriate); 84182 CRMWS (if appropriate); 86256 DPPTS (if appropriate); 86256 GABIS (if appropriate); 86256 IG5TS (if appropriate); 84182 MP1BS (if appropriate); 86255 GL1CS (if appropriate); 86256 GL1TS (if appropriate); 86255 GL5CS (if appropriate); 86256 GL5TS (if appropriate); 86255 NCDCS (if appropriate); 86256 NCDTS (if appropriate); 86256 NMDIS (if appropriate); 86256 PC2TS (if appropriate); 84182 PCTBS (if appropriate); 86256 PCTTS (if appropriate); 86256 PDETS (if appropriate); 86255 T46CS (if appropriate); 86256 T46TS (if appropriate);

DMC2
92115

Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Preferred: Collection vial number 1 Acceptable: Any collection vial Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 23; 86341; 84182 AGNBC (if appropriate); 86256 AGNTC (if appropriate); 86255 AK5CC (if appropriate); 86256 AK5TC (if appropriate); 86255 AINCC (if appropriate); 86256 AMPIC (if appropriate); 86256 APHTC (if appropriate); 84182 AMIBC (if appropriate); 84182 AN1BC (if appropriate); 86256 AN1TC (if appropriate); 84182 AN2BC (if appropriate); 86256 AN2TC (if appropriate); 86256 AN3TC (if appropriate); 86256 CRMTC (if appropriate); 84182 CRMWC (if appropriate); 86256 DPPTC (if appropriate); 86256 GABIC (if appropriate); 86255 GFACC (if appropriate); 86256 GFATC (if appropriate); 86256 IG5TC (if appropriate); 84182 MP1BC (if appropriate); 86255 GL1CC (if appropriate); 86256 GL1TC (if appropriate); 86255 GL5CC (if appropriate); 86256 GL5TC (if appropriate); 86255 NCDCC (if appropriate); 86256 NCDTC (if appropriate); 86255 NFHCC (if appropriate); 86256 NIFTC (if appropriate); 86255 NFLCC (if appropriate); 86256 NMDIC (if appropriate); 86256 PC2TC (if appropriate); 84182 PCTBC (if appropriate); 86256 PCTTC (if appropriate); 86256 PDETC (if appropriate); 86255 T46CC (if appropriate); 86256 T46TC (if appropriate);

ENS2
92116

Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, collect specimen before starting immunosuppressant medication or intravenous immunoglobulin (IVIg) treatment. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 24; 86341; 0432U; 83516; 84182 AGNBS (if appropriate); 86256 AGNTS (if appropriate); 86255 AK5CS (if appropriate); 86256 AK5TS (if appropriate); 86256 AMPIS (if appropriate); 86256 APHTS (if appropriate); 84182 AMIBS (if appropriate); 84182 AN1BS (if appropriate); 86256 AN1TS (if appropriate); 84182 AN2BS (if appropriate); 86256 AN2TS (if appropriate); 86256 AN3TS (if appropriate); 86256 CRMTS (if appropriate); 84182 CRMWS (if appropriate); 86256 DPPTS (if appropriate); 86256-GABIS (if appropriate); 86256 IG5TS (if

appropriate); 86256 K11TS (if appropriate); 84182 MP1BS (if appropriate); 86255 GL1CS (if appropriate); 86256 GL1TS (if appropriate); 86255 GL5CS (if appropriate); 86256 GL5TS (if appropriate); 86255 NCDCS (if appropriate); 86256 NCDTS (if appropriate); 86256 NMDIS (if appropriate); 84182 PC1BS (if appropriate); 86256 PC1TS (if appropriate); 86256 PC2TS (if appropriate); 84182 PCTBS (if appropriate); 86256 PCTTS (if appropriate); 86256 PDETS (if appropriate); 86255 SP7CS (if appropriate); 86256 SP7TS (if appropriate); 86255 T46CS (if appropriate); 86256 T46TS (if appropriate);

ENC2
92117

Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Preferred: Collection vial number 1 Acceptable: Any collection vial Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 26; 86341; 0432U; 83516; 84182 AGNBC (if appropriate); 86256 AGNTC (if appropriate); 86255 AK5CC (if appropriate); 86256 AK5TC (if appropriate); 86255 AINCC (if appropriate); 86256 AMPIC (if appropriate); 86256 APHTC (if appropriate); 84182 AMIBC (if appropriate); 84182 AN1BC (if appropriate); 86256 AN1TC (if appropriate); 84182 AN2BC (if appropriate); 86256 AN2TC (if appropriate); 86256 AN3TC (if appropriate); 86256 CRMTC (if appropriate); 84182 CRMWC (if appropriate); 86256 DPPTC (if appropriate); 86256 GABIC (if appropriate); 86255 GFACC (if appropriate); 86256 GFATC (if appropriate); 86256 IG5TC (if appropriate); 86256 K11TC (if appropriate); 84182 MP1BC (if appropriate); 86255 GL1CC (if appropriate); 86256 GL1TC (if appropriate); 86255 GL5CC (if appropriate); 86256 GL5TC (if appropriate); 86255 NCDCC (if appropriate); 86256 NCDTC (if appropriate); 86255 NFHCC (if appropriate); 86256 NIFTC (if appropriate); 86255 NFLCC (if appropriate); 86256 NMDIC (if appropriate); 84182 PC1BC (if appropriate); 86256 PC1TC (if appropriate); 86256 PC2TC (if appropriate); 84182 PCTBC (if appropriate); 86256 PCTTC (if appropriate); 86256 PDETC (if appropriate); 86255 SP7CC (if appropriate); 86256 SP7TC (if appropriate); 86255 T46CC (if appropriate); 86256 T46TC (if appropriate);

EPS2
92118

Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, collect specimen before starting immunosuppressant medication or intravenous immunoglobulin (IVIg) treatment. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 21; 86341; 0432U; 83516; 84182 AGNBS (if appropriate); 86256 AGNTS (if appropriate); 86255 AK5CS (if appropriate); 86256 AK5TS (if appropriate); 86256 AMPIS (if appropriate); 86256 APHTS (if appropriate); 84182 AMIBS (if appropriate); 84182 AN1BS (if appropriate); 86256 AN1TS (if appropriate); 84182 AN2BS (if appropriate); 86256 AN2TS (if appropriate); 86256 AN3TS (if appropriate); 86256 CRMTS (if appropriate); 84182 CRMWS (if appropriate); 86256 DPPTS (if appropriate); 86256 GABIS (if appropriate); 86256 K11TS (if appropriate); 84182 MP1BS (if appropriate); 86255 GL1CS (if appropriate); 86256 GL1TS (if appropriate); 86255 GL5CS (if appropriate); 86256 GL5TS (if appropriate); 86255 NCDCS (if appropriate); 86256 NCDTS (if appropriate); 86256 NMDIS (if appropriate); 86256 PC2TS (if appropriate); 84182 PCTBS (if appropriate); 86256 PCTTS (if appropriate); 86256 PDETS (if appropriate); 86255 T46CS (if appropriate); 86256 T46TS (if appropriate);

EPC2
92119

Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Preferred: Collection vial number 1 Acceptable: Any collection vial Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 22; 86341; 0432U; 83516; 84182 AGNBC (if appropriate); 86256 AGNTC (if appropriate); 86255 AK5CC (if appropriate); 86256 AK5TC (if appropriate); 86256 AMPIC (if appropriate); 86256 APHTC (if appropriate); 84182 AMIBC (if appropriate); 84182 AN1BC (if appropriate); 86256 AN1TC (if appropriate); 84182 AN2BC (if appropriate); 86256 AN2TC (if appropriate); 86256 AN3TC (if appropriate); 86256 CRMTC (if appropriate); 84182 CRMWC (if appropriate); 86256 DPPTC (if appropriate); 86256 GABIC (if appropriate); 86255 GFACC (if appropriate); 86256 GFATC (if appropriate); 86256 K11TC (if appropriate); 84182 MP1BC (if appropriate); 86255 GL1CC (if appropriate); 86256 GL1TC (if appropriate); 86255 GL5CC (if

appropriate); 86256 GL5TC (if appropriate); 86255 NCDCC (if appropriate); 86256 NCDTC (if appropriate); 86256 NMDIC (if appropriate); 86256 PC2TC (if appropriate); 84182 PCTBC (if appropriate); 86256 PCTTC (if appropriate); 86256 PDETC (if appropriate); 86255 T46CC (if appropriate); 86256 T46TC (if appropriate);

GID2
92120

Gastrointestinal Dysmotility, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, collect specimen before starting immunosuppressant medication or intravenous immunoglobulin (IVIg) treatment. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 8; 86256 AAGTS (if appropriate); 84182 AN1BS (if appropriate); 86256 AN1TS (if appropriate); 84182 AN2BS (if appropriate); 86255 APBCS (if appropriate); 86256 APBTS (if appropriate); 86256 CRMTS (if appropriate); 84182 CRMWS (if appropriate); 86256 DPPTS (if appropriate); 84182 MP1BS (if appropriate); 86256 PC2TS (if appropriate);

DYS2
92121

Dysautonomia, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, collect specimen before starting immunosuppressant medication or intravenous immunoglobulin treatment. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 8; 86256 AAGTS (if appropriate); 84182 AN1BS (if appropriate); 86256 AN1TS (if appropriate); 84182 AN2BS (if appropriate); 86255 APBCS (if appropriate); 86256 APBTS (if appropriate); 86256 CRMTS (if appropriate); 84182 CRMWS (if appropriate); 86256 DPPTS (if appropriate); 84182 MP1BS (if appropriate); 86256 PC2TS (if appropriate);

FROS2
92187

Fructose, Qualitative, Semen

Specimen Requirements:

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Semen	Frozen	

CPT Code Information: 82757

HCVQN
97291

Hepatitis C Virus (HCV) RNA Detection and Quantification by Real-Time Reverse Transcription-PCR, Serum

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 87522

ZW1
99991

Miscellaneous MML Referral Test 1

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW2
99992

Miscellaneous MML Referral Test 2

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

ZW3
99993

Miscellaneous MML Referral Test 3

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

JAMOVATSS
102516

Movat Pentachrome Stain

Specimen Requirements: This is not an orderable test. Order CONFL / Pathology Consultation. The consultant will determine the need for special stains.

CPT Code Information: 88313

PHI11
113000

Prostate Health Index Reflex, Serum

Specimen Requirements: Patient Preparation: 1. Specimens for testing should be collected prior to prostate manipulations such as digital rectal examination, prostatic massage, transrectal ultrasound, and prostatic biopsy. 2. A 6-week waiting period between needle biopsy and specimen collection is recommended. 3. Specimens should not be collected from patients receiving therapy with high biotin (vitamin B7) doses (ie, >5 mg/day) until at least 8 hours following the last biotin administration. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Within 3 hours of collection, centrifuge, aliquot serum into a plastic vial, and refrigerate. Freeze sample within 24 hours of collection and send frozen.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen (preferred)	150 days
	Ambient	24 hours
	Refrigerated	24 hours

CPT Code Information: 84153 - Total PSA; 84154 - Free PSA (if appropriate); 86316 - [-2]ProPSA (if appropriate);

CRHEP 113119 Chronic Viral Hepatitis (Unknown Type), Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2.5 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: 1.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 86704; 86706; 86803 ; 87340; 87341 (if appropriate); 87522 (if appropriate);

HCVDX 113121 Hepatitis C Virus (HCV) Antibody with Reflex to HCV RNA, PCR, Symptomatic, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.3 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 86803; 87522 (if appropriate);

HCSRN 113122 Hepatitis C Virus (HCV) Antibody Screen with Reflex to HCV RNA, PCR, Asymptomatic, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.3 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 86803 ; G0472 (if appropriate for government payers); 87522 Hepatitis C, quantification (if appropriate);

QUAD1 113145 Quad Screen (Second Trimester) Maternal, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Do not collect specimen after amniocentesis as this could affect results. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. Additional Information: 1. For an assessment that includes neural tube defect results, gestational age must be between 15 weeks, 0 days and 22 weeks, 6 days. 2. Assessments for trisomy 21 (Down syndrome) and trisomy 18 (Edwards syndrome) only are available between 14 weeks, 0 days and 22 weeks, 6 days. 3. Initial or repeat testing is determined in the laboratory at the time of report and will be reported accordingly. To be considered a repeat test for the patient, the testing must be within the same pregnancy and trimester, with interpretable results for the same tests, and both tests are performed at Mayo Clinic. 4. Maternal Serum Screening patient education brochure (T522) is available upon request.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 81511

CXC13
113163

CXCL13 Immunostain, Technical Component Only

Specimen Requirements: Supplies: Immunostain Technical Only Envelope (T693) Specimen Type: Tissue Container/Tube: Immunostain Technical Only Envelope Preferred: 2 Unstained positively charged glass slide (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Acceptable: Formalin-fixed, paraffin-embedded tissue block Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

IHMTO
113211

IHC Multiplex, Tech Only (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88344-TC

ISTOI
113216

ISH Initial, Tech Only (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88365-TC

ISTOA
113217

ISH Additional, Tech Only (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88364-TC

MSPTC
113288

Mass Spectrometry (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 82542-Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

IHPCI
113297

IHC Initial (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342

IHPCA
113298

IHC Additional (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88341

IHC26
113299

IHC Initial, Professional Only (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-26

IHA26
113300

IHC Additional, Professional Only (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88341-26

IHMPC
113301

IHC Multiplex (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88344

IHM26
113302

IHC Multiplex, Professional Only (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88344-26

IFPCI
113303

IF Initial (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88346

IFPCA
113304

IF Additional (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88350

ISPCI
113305

ISH Initial (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88365

ISPCA
113306

ISH Additional (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88364

ISH26
113307

ISH Initial, Professional Only (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88365-26

ISA26
113308

ISH Additional, Professional Only (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88364-26

LEV1P
113309

Level 1 Gross only (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88300

LEV2P
113310

Level 2 Gross and microscopic (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88302

LEV3P
113311

Level 3 Gross and microscopic (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88304

LEV4P
113312

Level 4 Gross and microscopic (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88305

LV4RP
113313

Level 4 Gross and Microscopic, RB (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88305

LEV5P
113314

Level 5 Gross and microscopic (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88307

LEV6P
113315

Level 6 Gross and microscopic (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 88309

CSPPC
113327

Consult, w/Slide Prep (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88323

CUPPC
113328

Consult, w/USS Prof (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88323-26

CRHPC
113329

Consult, w/Comp Rvw of His (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88325

KAIPC
113330

KappaLambda IHC (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342

PCIFS
113333

Frozen Section, 1st Block (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88331

PCAFS
113334

Frozen Section, Additional Blocks (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88332

NTPPC
113337

Non-Gynecologic, ThinPrep (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88112

NDSPC
113339

Non-Gynecologic Direct Smear (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88104

CTPPC
113340

Cytology Touch Prep (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88333

CTAPC
113341

Cytology Touch Prep Additional (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88334

CFNPC
113344

Cytology FNA (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88173

IAPC
113345

FNA Immediate Adequacy (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88172

IAAPC
113346

FNA Immediate Adequacy Add'l (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88177

BMAPC
113350

Bone Marrow Aspirate (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 85097 GC

BMBPC
113351

Bone Marrow Biopsy (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88305

BMCPC
113352

Bone Marrow Clot (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88305

MCMF
113355

Malignant Cells Cyto/Heme (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88108

EMR
113366

EM, Renal Biopsy (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88348

MLCPC
113370

Microdissection, Laser Capture (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88380-Microdissection; laser capture

MAFP1
113382

Alpha-Fetoprotein (AFP), Single Marker Screen, Maternal, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Do not collect specimen after amniocentesis as this could affect results. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. Additional Information: 1. Collect blood between 15 weeks, 0 days and 22 weeks, 6 days. 2. Initial or repeat testing is determined in the laboratory at the time of report and will be reported accordingly. To be considered a repeat test for the patient, the testing must be within the same pregnancy and trimester, with interpretable results for the same test, and both tests are performed at Mayo Clinic.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 82105

ATR
113383

Isoagglutinin Titer, Anti-A, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5mL (T914) Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2.5 mL Pediatric Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Ambient (preferred)	4 days
	Frozen	10 days
	Refrigerated	10 days

CPT Code Information: 86886

BTR
113384

Isoagglutinin Titer, Anti-B, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2.5 mL Pediatric Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Ambient (preferred)	4 days
	Frozen	10 days
	Refrigerated	10 days

CPT Code Information: 86886

ABYSR
113387

Antibody Screen with Reflexed Antibody Identification, Blood

Specimen Requirements: Container/Tube: Pink top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	4 days
	Ambient	4 days

CPT Code Information: 86850

ABIDR
113389

Antibody Identification, Blood and Serum

Specimen Requirements: Both blood and serum are required. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Specimen Type: Plasma/Blood Collection Container/Tube: 6-mL Pink-top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Plasma 3 mL Red blood cells (RBCs) Collection Instructions: 1. Centrifuge and aliquot plasma into a plastic vial. 2. Label specimen as EDTA plasma or EDTA RBCs as appropriate. 3. Send both tubes. Specimen Type: Serum/Blood Collection Container/Tube: 10-mL Red top Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Serum 5 mL RBCs Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial. 2. Label specimen as serum or clotted RBCs as appropriate. 3. Send both tubes.

Specimen Minimum Volume: Blood: 6 mL in EDTA; Pediatric: 2 mL Serum

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 86870; 86860-(if appropriate); 86886-(if appropriate); 86880 x 3 (if appropriate); 86905-(if appropriate); 86978-(if appropriate);

ABTIR
113390

Antibody Titer, Blood and Serum

Specimen Requirements: Blood cells, plasma, and serum are required. Supplies: Sarstedt Aliquot Tube, 5mL (T914) Specimen Type: Plasma/Blood Collection Container/Tube: 6-mL Pink top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Plasma 3 mL Red blood cells (RBCs) Collection Instructions: 1. Centrifuge and aliquot plasma into plastic vial. 2. Label specimens as EDTA plasma or EDTA RBCs as appropriate. 3. Send both tubes. Specimen Type: Serum/Blood Collection Container/Tube: 10-mL Red top Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Serum 5 mL RBCs Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial. 2. Label specimens as serum or clotted RBCs as appropriate. 3. Send both tubes.

Specimen Minimum Volume: Blood: 6 mL EDTA Pediatric: 2 mL Serum

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 86886; 86870 (if appropriate-per panel tested); 86860 (if appropriate); 86880 x 3 (if appropriate); 86905- (if appropriate); 86978 (if appropriate); 81403 (if appropriate)-Internal only ;

SPAGR
113392

Special Red Cell Antigen Typing, Whole Blood

Specimen Requirements: Container/Tube: Preferred: Pink top (EDTA) Acceptable: Lavender top (EDTA) Specimen Volume: 6 mL Pediatric Volume: 3 mL Blood in pink-top or lavender-top (EDTA) tube Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Ambient	72 hours

CPT Code Information: 86905-Each red cell antigen typing (if more than one ordered)

PBDC
113400

Lead, Capillary, with Demographics, Blood

Specimen Requirements: ***This specimen container cannot be opened or used for any other testing before shipping.*** Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal testing. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Microtainer (EDTA) Tube, 0.5 mL (T174) Collection Container/Tube: BD Microtainer MAP (microtube for automated process) with EDTA Specimen Volume: 0.4 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83655

PBDV
113401

Lead, Venous, with Demographics, Blood

Specimen Requirements:

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83655

T790M
113410

Cell-Free DNA EGFR T790M Mutation Analysis, Blood

Specimen Requirements: Supplies: Streck Black/Tan Top Tube Kit (T715) Specimen Volume: Two, 10-mL Streck cell-free DNA (cfDNA) blood collection tubes Additional Information: 1. Only blood collected in Streck cfDNA tubes will be accepted for analysis. 2. Whole blood will be processed to produce platelet-poor plasma before cfDNA isolation.

Specimen Minimum Volume: One 10 mL Streck tube

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	7 days	Streck Black/Tan top
	Refrigerated	7 days	Streck Black/Tan top

CPT Code Information: 81235

OXYWB
113429

Oxysterols, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium heparin, lithium heparin) or yellow top (ACD B) Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	72 hours
	Ambient	48 hours

CPT Code Information: 82542

GPSYW
113430

Glucopsychosine, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium heparin, lithium heparin) or yellow top (ACD B) Specimen Volume: 1 mL Collection Instructions: Send whole blood in original vial. Do not aliquot.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	72 hours
	Ambient	48 hours

CPT Code Information: 82542

MPSWB
113435

Mucopolysaccharidosis, Blood

Specimen Requirements: Patient Preparation: For 6 hours before specimen collection, patient should not receive heparin. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: Do not collect specimen from a line that may have been used to infuse heparin or has been flushed with heparin.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 83864

A1R
113437

A1 Antigen Subtype, Blood

Specimen Requirements: Container/Tube: Pink top (EDTA) Specimen Volume: 6 mL Pediatric Volume: 2 mL blood in 6 mL pink-top (EDTA) tube Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Ambient	72 hours

CPT Code Information: 86905

CTXWB
113444

Cerebrotendinous Xanthomatosis, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium heparin, lithium heparin), yellow top (ACD B) Specimen Volume: 1 mL Collection Instructions: Send whole blood in original vial. Do not aliquot.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	72 hours
	Ambient	48 hours

CPT Code Information: 82542

DCTR
113489

Direct Antiglobulin Test (Polyspecific), Blood

Specimen Requirements: Container/Tube: Pink top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 3 mL; Neonates: EDTA Micro tube 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Ambient (preferred)	48 hours
	Refrigerated	48 hours

CPT Code Information: 86880

ABOMR
113490

ABO/Rh, Blood

Specimen Requirements: Container/Tube: Pink top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Additional Information: Blood for this test cannot be shared with other tests. Submit specimen for this test in its own vial.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	10 days
	Ambient	4 days

CPT Code Information: 86900-ABO; 86901-Rh;

ABONR
113498

ABO/Rh Newborn, Blood

Specimen Requirements: Container/Tube: Pink top (EDTA Micro tube) Specimen Volume: 0.5 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	10 days
	Ambient	4 days

CPT Code Information: 86900; 86901;

ICOSI
113518

ICOS (CD278), Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

LGBBS
113521

Globotriaosylsphingosine, Blood Spot

Specimen Requirements: Supplies: -Card-Blood Spot Collection (Filter Paper) (T493) -Card Postmortem Screening (Filter Paper) (T525) Container/Tube: Preferred: Blood Spot Collection Card (Filter Paper) Acceptable: Whatman Protein Saver 903 filter paper, PerkinElmer 226 filter paper, Munktell filter paper, Postmortem Screening Card or collected with EDTA, sodium heparin, lithium heparin, or ACD B-containing devices Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry completely on filter paper at ambient

temperature in a horizontal position for a minimum of 3 hours. 3. At least 1 spot should be complete,(ie, unpunched). 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions. 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800).

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	10 days	FILTER PAPER
	Frozen	59 days	FILTER PAPER
	Ambient	10 days	FILTER PAPER

CPT Code Information: 82542

COGMF
113528

Acute Myeloid Leukemia (AML), Children's Oncology Group Enrollment Testing, FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x 2, 88275, 88291-FISH Probe, Analysis, Interpretation; 1 probe set; 88271 x 2, 88275-FISH Probe, Analysis; each additional probe set (if appropriate);

COGTF
113529

T-Cell Acute Lymphoblastic Leukemia/Lymphoma (ALL), Children's Oncology Group Enrollment Testing, FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x2, 88275 x1, 88291 x1- FISH Probe, Analysis, Interpretation; 1 probe set; 88271 x2, 88275x1 - FISH Probe, Analysis; each additional probe set (if appropriate);

COGBF
113530

B-Cell Acute Lymphoblastic Leukemia/Lymphoma (ALL), Children's Oncology Group Enrollment Testing, FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x 2, 88275, 88291-FISH Probe, Analysis, Interpretation; 1 probe set; 88271 x 2, 88275-FISH Probe, Analysis; each additional probe set (if appropriate);

COGBM 113531 Chromosome Analysis, Hematologic Disorders, Children's Oncology Group Enrollment Testing, Bone Marrow

Specimen Requirements: Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 4 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88237, 88291-Tissue culture for neoplastic disorders; bone marrow, blood, Interpretation and report; 88264 w/ modifier 52-Chromosome analysis with less than 20 cells (if appropriate); 88264-Chromosome analysis with 20 to 25 cells (if appropriate); 88264, 88285-Chromosome analysis with greater than 25 cells (if appropriate); 88283-Additional specialized banding technique (if appropriate);

COGBL 113532 Chromosome Analysis, Hematologic Disorders, Children's Oncology Group Enrollment Testing, Blood

Specimen Requirements: Specimen Type: Blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Invert several times to mix blood.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88237, 88291-Tissue culture for neoplastic disorders; bone marrow, blood, Interpretation and report; 88264 w/ modifier 52-Chromosome analysis with less than 20 cells (if

appropriate); 88264-Chromosome analysis with 20 to 25 cells (if appropriate); 88264, 88285-Chromosome analysis with greater than 25 cells (if appropriate); 88283-Additional specialized banding technique (if appropriate);

QFT4
113563

QuantiFERON-TB Gold Plus, Blood

Specimen Requirements: Supplies: -QuantiFERON-TB Gold Plus Collection Kit (T794) -QuantiFERON-TB Gold Plus HIGH ALTITUDE Collection Kit (T795) Collection Instructions: 1. Special collection, incubation, and centrifugation procedures must be followed. 2. For blood collection options (1-tube collection or 4-tube collection) and specimen transport instructions, see Mycobacterium tuberculosis Infection Determination by Quanti-FERON-TB Gold Plus Collection and Processing Instructions (T688).

Specimen Minimum Volume: 4 mL: 1 mL per tube (4 tubes)

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated	28 days	QTBKIT

CPT Code Information: 86480

HIVQN
113581

HIV-1 RNA Detection and Quantification, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Plasma Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 87536

DHES1
113595

Dehydroepiandrosterone Sulfate, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 82627

SSTR2
113597

Somatostatin Receptor 2 (SSTR2), Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

BMAMA
113630

Basic Metabolic Panel, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated	24 hours

CPT Code Information: 84132; 84295; 82435; 82374; 84520; 82565; 82310; 82947;

CMAMA
113631

Comprehensive Metabolic Panel, Serum

Specimen Requirements: Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Amber vial Specimen Volume: 0.6 mL Collection Instructions: 1. Serum gel tubes should be centrifuged and protected from light within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into an amber vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated	24 hours

CPT Code Information: KS-84132; NAS-84295; CL-82435; HCO3-82374; BUN-84520; CRTS1-82565; CA-82310; GLURA-82947; TP-84155; ALB-82040; AST-84450; ALP-84075; ALT-84460; BILIT-82247;

ELPSR
113632

Electrolyte Panel, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated	24 hours

CPT Code Information: 80051-Electrolyte Panel (if all 4 are performed); 82435-Chloride (if all 4 are not performed); 84295- Sodium (if all 4 are not performed); 84132-Potassium (if all 4 are not performed); 82374-Bicarbonate (if all 4 are not performed);

LIVPR
113633

Liver Profile, Serum

Specimen Requirements: Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Amber vial Specimen Volume: 0.6 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into an amber vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated	7 days

CPT Code Information: 82247; 82248; 84450; 84460; 84075; 82040; 84155; 80076 (if appropriate if all analytes performed);

RFAMA
113634

Renal Function Panel, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated	24 hours

CPT Code Information: KS: 84132; NAS: 84295; CL: 82435; HCO3: 82374; BUN: 84520; CRTS1:

82565; CA: 82310; GLURA: 82947; ALB: 82040; PHOS: 84100;

CXCFX
601508

MYD88 Reflex to CXCR4 Mutation Detection, Varies (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see LPLFX / Lymphoplasmacytic Lymphoma/Waldenstrom Macroglobulinemia, MYD88 L265P with Reflex to CXCR4, Varies.

Specimen Minimum Volume: Whole blood, Bone marrow: 1 mL; Extracted DNA: 20 mcL with a concentration of at least 10 nanograms per mcL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	10 days

CPT Code Information: 81479

CA
601514

Calcium, Total, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. If drawing for more than total calcium, send first tube drawn. 2. Serum gel tubes should be centrifuged within 2 hours of collection. 3. Red-top tubes should be centrifuged and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	240 days
	Refrigerated	21 days

CPT Code Information: 82310

HSMBS
601519

Hepatosplenomegaly Panel, Blood Spot

Specimen Requirements: Supplies: -Card-Blood Spot Collection (Filter Paper) (T493) -Card-Postmortem Screening (Filter Paper) (T525) Container/Tube: Preferred: Blood Spot Collection card

(Filter Paper) Acceptable: Whatman Protein Saver 903 filter paper, PerkinElmer 226 filter paper, Munktell filter paper, Postmortem Screening Card, or collected with EDTA, sodium heparin, lithium heparin, or ACD B-containing devices Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect Dried Blood Spot Samples. 2. Let blood completely dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. At least 1 spot should be complete (ie, unpunched). 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions. 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800).

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	10 days	FILTER PAPER
	Frozen	59 days	FILTER PAPER
	Ambient	10 days	FILTER PAPER

CPT Code Information: 82542

LACS1
601685

Lactate, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Gray top (potassium oxalate/sodium fluoride) Submission Container/Tube: Plastic vial Specimen Volume: 0.625 mL Plasma Collection Instructions: 1. Draw at least 1 mL whole blood in a 2-mL collection tube or at least 2 mL whole blood in a 4-mL collection tube. 2. Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma NaFl-KOx	Refrigerated (preferred)	14 days
	Ambient	8 hours

CPT Code Information: 83605

MUCN4
601740

Mucin 4, Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HVDIP 601758 HIV-1 and HIV-2 Antibody Confirmation and Differentiation, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Plasma Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into plastic vial.

Specimen Minimum Volume: Plasma: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	30 days
	Refrigerated	6 days

CPT Code Information: 86701; 86702; 87535 (if appropriate); 87538 (if appropriate); 87536 (if appropriate);

HVDSP 601759 HIV-1 and HIV-2 Antibody Confirmation and Differentiation, Prenatal, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Plasma Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	30 days
	Refrigerated	6 days

CPT Code Information: 86701; 86702; 87535 (if appropriate); 87538 (if appropriate); 87536 (if appropriate);

LASF1
601821

Lactic Acid, Spinal Fluid

Specimen Requirements: Specimen Type: Spinal fluid Container/Tube: Sterile container Specimen Volume: 1 mL Collection Instructions: Centrifuge to remove any cellular material.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	60 days
	Refrigerated	24 hours
	Ambient	3 hours

CPT Code Information: 83605

RSVAB
601948

Respiratory Syncytial Virus (RSV) In Situ Hybridization, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -4 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88365-TC, Primary; 88364-TC, if additional ISH;

PFIB
601950

Parafibromin, Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CMVQN
601954

Cytomegalovirus (CMV) DNA Detection and Quantification by Real-Time PCR, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Plasma Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 87497

CD273
601986

CD273 (PD-L2) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MALI
601988

MAL Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

B2MU
602026

Beta-2 Microglobulin, Random, Urine

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic, urine tube Specimen Volume: 1 mL Collection Instructions: 1. Patient should empty bladder. 2. Have patient drink at least 0.5 liters of water. 3. Within 1 hour, collect a random urine specimen. 4. Add 1M sodium hydroxide (NaOH) as preservative to the collection. This preservative is intended to achieve an approximate pH of between 6 and 8.

Specimen Minimum Volume: 0.5mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	14 days
	Refrigerated	48 hours

CPT Code Information: 82232

A2PI
602169

Alpha-2 Plasmin Inhibitor, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85410

VWACT
602170

von Willebrand Factor Activity, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85397

PTSC
602171

Prothrombin Time (PT), Plasma (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile or as a reflex. For more information see: ALUPP / Lupus Anticoagulant Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma AATHR / Thrombophilia Profile, Plasma and Whole Blood APROL / Prolonged Clot Time Profile, Plasma ADIC / Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85610

APTSC
602172

Activated Partial Thromboplastin Time (APTT), Plasma (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile or as a reflex. For more information see: ALUPP / Lupus Anticoagulant Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma AATHR / Thrombophilia Profile, Plasma and Whole Blood APROL / Prolonged Clot Time Profile, Plasma ADIC / Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85730

CLFIB
602173

Fibrinogen, Clauss, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile or as a reflex. For more information, see: AATHR / Thrombophilia Profile, Plasma and Whole Blood ADIC / Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma ALUPP / Lupus Anticoagulant Profile, Plasma APROL / Prolonged Clot Time Profile, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85384

DIMER
602174

D-Dimer, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile or as a reflex. For more information see: ALBLD / Bleeding Diathesis Profile, Limited, Plasma AATHR / Thrombophilia Profile, Plasma and Whole Blood APROL / Prolonged Clot Time Profile, Plasma ADIC / Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma ALUPP / Lupus Anticoagulant Profile, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85379

SOLFM
602175

Soluble Fibrin Monomer, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ALUPP / Lupus Anticoagulant Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma AATHR / Thrombophilia Profile, Plasma and Whole Blood APROL / Prolonged Clot Time Profile, Plasma ADIC / Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85366

DRV1
602176

Dilute Russell's Viper Venom Time (DRVVT), Plasma (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile or as a reflex. For more information see: ALUPP / Lupus Anticoagulant Profile, Plasma AATHR / Thrombophilia Profile, Plasma and Whole Blood APROL / Prolonged Clot Time Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma ADIC / Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85613-DRVVT; 85613-DRVVT mix (if appropriate); 85613-DRVVT confirmation (if appropriate);

DRV2
602177

Dilute Russell's Viper Venom Time (DRVVT) Mix, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ALUPP / Lupus Anticoagulant Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma AATHR / Thrombophilia Profile, Plasma and Whole Blood APROL / Prolonged Clot Time Profile, Plasma ADIC / Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85613

DRV3
602178

Dilute Russell's Viper Venom Time (DRVVT) Confirmation, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ALUPP / Lupus Anticoagulant Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma AATHR / Thrombophilia Profile, Plasma and Whole Blood APROL / Prolonged Clot Time Profile, Plasma ADIC / Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85613

DRVI1
602179

Dilute Russell's Viper Venom Time (DRVVT), with Reflex, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet poor plasma 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85613; 85613 (if appropriate); 85613 (if appropriate);

DRVI2
602180

Dilute Russell's Viper Venom Time (DRVVT) Mix Ratio, Plasma (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: Platelet poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85613

DRVI3
602181

Dilute Russell's Viper Venom Time (DRVVT) Confirmation Ratio, Plasma (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: Platelet poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85613

APMSC
602182

Activated Partial Thromboplastin Time (APTT) Mix 1:1, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ALUPP / Lupus Anticoagulant Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma AATHR / Thrombophilia Profile, Plasma and Whole Blood APROL / Prolonged Clot Time Profile, Plasma ADIC / Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85732

PTMSC
602183

Prothrombin Time Mix 1:1, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ALUPP / Lupus

Anticoagulant Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma AATHR / Thrombophilia Profile, Plasma and Whole Blood APROL / Prolonged Clot Time Profile, Plasma ADIC / Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85611

TTSC
602184

Thrombin Time (Bovine), Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85670

RTSC
602185

Reptilase Time, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85635

PDBS
602280

Pompe Disease, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: PerkinElmer 226 filter paper, Munktell filter paper, Whatman Protein Saver 903 paper, local newborn screening card, or blood collected in tubes containing ACD or EDTA, and dried on filter paper Specimen Volume: 3 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Completely fill at least 3 circles on the filter paper card (approximately 100 microliters blood per circle). 3. Let blood dry completely on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	90 days
	Frozen	90 days
	Ambient	28 days

CPT Code Information: 83789

LGBWB
602351

Globotriaosylsphingosine, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium heparin, lithium heparin) and yellow top (ACD B) Specimen Volume: 1 mL Collection Instructions: Send whole blood in original vial. Do not aliquot.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	72 hours
	Ambient	48 hours

CPT Code Information: 82542

KS
602352

Potassium, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated	48 hours

CPT Code Information: 84132

NAS
602353

Sodium, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Ambient	14 days

CPT Code Information: 84295

INSM1
602573

Insulinoma-Associated Protein 1 (INSM1), Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double

mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PRCAL 602598 Procalcitonin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Specimen Volume: 0.6 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Refrigerated	48 hours
	Ambient	24 hours

CPT Code Information: 84145

MPLVS 602599 MPL Exon 10 Mutation Detection, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collections Instructions: 1. Invert several times to mix blood. 2. Send specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Stability: Ambient (preferred)/Refrigerate Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 2 mL Collections Instructions: 1. Invert several times to mix bone marrow. 2. Send specimens in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability: Ambient (preferred)/Refrigerate Specimen Type: Extracted DNA from whole blood or bone marrow Container/Tube: 1.5- to 2- mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted from blood or bone marrow within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen 3. Provide volume and concentration of the DNA. Specimen Stability Information: Frozen (preferred) 1 year/Refrigerated/Ambient Additional Information: DNA must be extracted in a CLIA-certified

laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood, Bone marrow: 0.5 mL; Extracted DNA: 50 mcL at 20 ng/mcL concentration

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	7 days

CPT Code Information: 81339-MPL (myeloproliferative leukemia virus oncogene, thrombopoietin receptor, TPOR) (eg, myeloproliferative disorder), exon 10 sequence

TTF40
602647

TTF41 (SPT24) + p40 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88344-TC

SLYME
602732

Lyme Antibody Modified 2-Tier with Reflex, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	10 days
	Frozen	30 days

CPT Code Information: 86618; 86617 x2 (if appropriate);

STICK
602733

Tick-Borne Antibodies, Modified 2-Tier, ELISA, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.35 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	10 days
	Frozen	14 days

CPT Code Information: 86618; 86666 x 2; 86753; 86617 x 2 (if appropriate);

LH
602752

Luteinizing Hormone (LH), Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	24 hours

CPT Code Information: 83002

FSH
602753

Follicle-Stimulating Hormone (FSH), Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	7 days	
	Frozen	180 days	
	Ambient	24 hours	

CPT Code Information: 83001

VEDOL
602807

Vedolizumab Quantitation with Reflex to Antibodies, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: 1. Draw blood immediately before next scheduled dose (trough specimen). 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 80280; 82397 (if appropriate);

VEDOZ
603025

Vedolizumab Quantitation with Antibodies, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: 1. Draw blood immediately before next scheduled dose (trough specimen). 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 80280; 82397;

NONCP
603047

Neuro-Oncology Expanded Gene Panel with Rearrangement, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 360 mm(2) -Minimum amount of tumor area: tissue 72 mm(2) -If ordered in conjunction with CMAPT / Chromosomal Microarray, Tumor, Formalin-Fixed Paraffin-Embedded, the preferred amount of tissue is 430 mm(2), the minimum amount is 180 mm(2). -These amounts are cumulative over up to 15 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirements for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 6 mm x 6 mm x 10 slides as preferred: approximate/equivalent to 360 mm(2) and the minimum as 4 mm x 4 mm x 10 slides: approximate/equivalent to 144 mm(2). Preferred: Submit 2, if available, of the following specimens. Acceptable: Submit at least one of the following specimens. Tissue blocks are preferred over tissue slides. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 15 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 15 Unstained, nonbaked slides with

5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 15 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: ; 81455; 81456;

ALBLI
603181

Limited Bleeding Diathesis Profile Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26 Special Coagulation Interpretation

ADICI
603182

Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26 Special Coagulation Interpretation

APRI
603183

Prolonged Clot Time Profile Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26 Special Coagulation Interpretation

AATHI
603184

Thrombophilia Profile Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26 Special Coagulation Interpretation

AVWPQ
603186

von Willebrand Disease Profile Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26 Special Coagulation Interpretation

CD2B
603203

CD2 Immunostain, Bone Marrow, Technical Component Only

Specimen Requirements: Supplies: Immunostain Technical Only Envelope (T693) Specimen Type: Tissue Container/Tube: Immunostains Technical Only Envelope Preferred: 2 Unstained positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick; B5 fixed, decalcified, paraffin-embedded bone marrow tissue. Acceptable: B5 fixed, decalcified, paraffin-embedded bone marrow tissue block. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

C19BM
603205

CD19 Immunostain, Bone Marrow, Technical Component Only

Specimen Requirements: Supplies: Immunostain Technical Only Envelope (T693) Specimen Type: Tissue Container/Tube: Immunostains Technical Only Envelope Preferred: 2 Unstained positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick; B5 fixed, decalcified, paraffin-embedded bone marrow tissue. Acceptable: B5 fixed, decalcified, paraffin-embedded bone marrow tissue block. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CDKPB
603209

CD68 (KP1) Immunostain, Bone Marrow, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ECADB
603211

E-Cadherin Immunostain, Bone Marrow, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

GATAB
603213

GATA-Binding Protein 3 Immunostain, Technical Component Only, Bone Marrow,

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Preferred: 2 Unstained positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick; B5 fixed, decalcified, paraffin-embedded bone marrow tissue. Acceptable: B5 fixed, decalcified, paraffin-embedded bone marrow tissue block. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MUM1B
603217

MUM-1/IRF4 Immunostain, Bone Marrow, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

RPRS
603261

Rapid Plasma Reagin Screen with Reflex, Serum

Specimen Requirements: Only available as a reflex test. For more information see SYPHT / Syphilis Total Antibody with Reflex, Serum. Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Information: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86593-Rapid Plasma Reagin Titer (if appropriate); 86780-Syphilis Antibody by TP-PA (if appropriate);

RALB
603287

Albumin, Random, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	7 days

CPT Code Information: 82043; 82570;

TRK
603300

Tropomyosin Receptor Kinase (TRK) Immunostain, Technical Component Only

Specimen Requirements: Supplies: Immunostain Technical Only Envelope (T693) Specimen Type: Tissue Container/Tube: Immunostains Technical Only Envelope Preferred: 2 Unstained positively charged glass slide (25- x 75- x 1-mm) per test ordered; sections 4-microns thick. Acceptable: Formalin-fixed, paraffin-embedded tissue block Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

AATHR
603304

Thrombophilia Profile, Plasma and Whole Blood

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 5 mL total, 5 plastic vials each containing 1 mL, Whole blood: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days
Whole blood	Ambient (preferred)	14 days
	Frozen	14 days
	Refrigerated	14 days

CPT Code Information: 81240-F2 PTNT; 85300-ATTF; 85303-CFX; 85306-PSF; 85307-APCRV; 85379-DIMER; 85384-CLFIB; 85390-26-AATHI; 85610-PTSC; 85613-DRV1; 85670-TTSC; 85730-APTSC; 81241-F5 (coagulation factor V) (eg, hereditary hypercoagulability) gene analysis, Leiden variant (if appropriate); 85210-Factor II (if appropriate); 85220-Factor V (if appropriate); 85230-Factor VII (if appropriate); 85240-Factor VIII (if appropriate); 85250-Factor IX (if appropriate); 85260-Factor X

(if appropriate); 85270-Factor XI (if appropriate); 85280-Factor XII (if appropriate); 85301-Antithrombin antigen (if appropriate); 85302-Protein C antigen (if appropriate); 85305-Protein S antigen, total (if appropriate); 85306-Protein S activity (if appropriate); 85366-Soluble fibrin monomer (if appropriate); 85385-PT-Fibrinogen (if appropriate); 85597-Platelet neutralization for lupus inhibitor (if appropriate); 85598-Hex LA (if appropriate); 85611-PT mix 1:1 (if appropriate); 85613-DRVVT mix (if appropriate); 85613-DRVVT confirmation (if appropriate); 85635-Reptilase (if appropriate); 85732 - APTT Mix 1:1 (if appropriate);

ALBLD
603305

Bleeding Diathesis Profile, Limited, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 4 Plastic vials, each containing 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85610-PTSC; 85730-APTSC; 85670-TTSC; 85384-CLFIB; 85379-DIMER; 85390-26-ALBLI; 85240-F8A; 85250-F_9; 85291-FXIII; 85246-VWAG; 85397-VWACT; 85130-Chromogenic factor VIII (if appropriate); 85130-Chromogenic factor IX (if appropriate); 85210-Factor II (if appropriate); 85220-Factor V (if appropriate); 85230-Factor VII (if appropriate); 85245-Ristocetin cofactor (if appropriate); 85247-von Willebrand factor multimer (if appropriate); 85260-Factor X (if appropriate); 85270-Factor XI (if appropriate); 85280-Factor XII (if appropriate); 85300-Antithrombin activity (if appropriate); 85301-Antithrombin antigen (if appropriate); 85335-Bethesda units (if appropriate); 85335-Factor II inhibitor screen (if appropriate); 85335-Factor V inhibitor screen (if appropriate); 85335-Factor VII Inhibitor screen (if appropriate); 85335-Factor VIII inhibitor screen (if appropriate); 85335-Factor IX inhibitor screen (if appropriate); 85335-Factor X inhibitor screen (if appropriate); 85335-Factor XI inhibitor screen (if appropriate); 85366-Soluble fibrin monomer (if appropriate); 85385-PT-Fibrinogen (if appropriate); 85410-Alpha-2 plasmin inhibitor (if appropriate); 85415-PAI-1 Ag (if appropriate); 85420-Plasminogen Activity (if appropriate); 85597-Platelet neutralization for lupus inhibitor (if appropriate); 85598-Hex LA (if appropriate); 85611-PT mix 1:1 (if appropriate); 85613-DRVVT (if appropriate); 85613-DRVVT mix (if appropriate); 85613-DRVVT confirm (if appropriate); 85635-Reptilase time (if appropriate); 85732-APTT mix 1:1 (if appropriate);

ADIC
603306

Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85610-PTSC; 85730-APTSC; 85670-TTSC; 85379-DIMER; 85384-CLFIB; 85390-26-ADICI; 85210-Factor II (if appropriate); 85220-Factor V (if appropriate); 85230-Factor VII (if appropriate); 85240-Coagulation factor VIII assay (if appropriate); 85250-Factor IX (if appropriate); 85260-Factor X (if appropriate); 85270-Factor XI (if appropriate); 85280-Factor XII (if appropriate); 85366-Soluble fibrin monomer (if appropriate); 85385-PT-Fibrinogen (if appropriate); 85597-Platelet neutralization for lupus inhibitor (if appropriate); 85598-Hex LA (if appropriate); 85611-PT mix 1:1 (if appropriate); 85613-DRVVT (if appropriate); 85613-DRVVT mix (if appropriate); 85613-DRVVT confirm (if appropriate); 85635-Reptilase time (if appropriate); 85732-APTT mix 1:1 (if appropriate);

APROL
603308

Prolonged Clot Time Profile, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: Four (4) 13-mm x 75-mm, 5-mL, polypropylene, plastic vials, each containing 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85379-DIMER; 85384-CLFIB; 85390-26-APRI; 85610-PTSC; 85613-DRV1; 85670-TTSC; 85730-APTSC; 85130-Chromogenic FVIII (if appropriate); 85130-Chromogenic FIX (if appropriate); 85210-Factor II (if appropriate); 85220-Factor V (if appropriate); 85230-Factor VII (if appropriate); 85240-Factor VIII (if appropriate); 85250-Factor IX (if appropriate); 85260-Factor X (if appropriate); 85270-Factor XI (if appropriate); 85280-Factor XII (if appropriate); 85335-Bethesda titer (if appropriate); 85335-Factor V inhibitor screen (if appropriate); 85335-Factor VIII inhibitor screen (if appropriate); 85335-Factor IX inhibitor screen (if appropriate); 85366-Soluble fibrin monomer (if appropriate); 85385-PT-Fibrinogen (if appropriate); 85597-Platelet neutralization for lupus inhibitor (if appropriate); 85598-Hex LA (if appropriate); 85611-PT mix 1:1 (if appropriate); 85613-DRVVT mix (if appropriate); 85613-DRVVT confirm (if appropriate); 85635-Reptilase time (if appropriate); 85732-APTT mix 1:1 (if appropriate);

DRVI4
603310

Dilute Russell's Viper Venom Time (DRVVT) Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as a part of a profile. For more information see DRVI1 / Dilute Russell's Viper Venom Time (DRVVT), with Reflex, Plasma.

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

DLL3
603332

Delta-Like 3 Protein (SP347), Semi-Quantitative Immunohistochemistry, Manual, Tissue

Specimen Requirements: A minimum of 100 tumors cells are required for interpretation of DLL3 expression. Specimen Type: Tissue Supplies: Pathology Packaging Kit (T554) Submit: Formalin-fixed, paraffin-embedded tissue block OR 3 Unstained glass, "positively charged" slides with 4-microns formalin-fixed, paraffin-embedded tissue Additional Information: 1. One slide will be stained with hematoxylin and eosin and returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

RHUT
603415

Rheumatoid Factor, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Ambient	14 days
	Frozen	14 days

CPT Code Information: 86431

CDIFS
603416

Clostridioides difficile Culture with Antimicrobial Susceptibilities, Varies

Specimen Requirements: Submit only 1 of the following specimens: Patient Preparation: Patient should not use antacids, barium, bismuth, antidiarrheal medication, zinc oxide paste, Vagisil cream or oily laxatives prior to specimen collection. Preferred: Specimen Type: Preserved feces Supplies: -Culture and Sensitivity Stool Transport Vial (T058) -Stool Collection Kit, Random (T635) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of non-nutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S [T058]) Specimen Volume: Representative portion of feces; 5 mL Collection Instructions: 1. Collect fresh feces and submit 1 gram or 5 mL in container with transport medium. 2. Within 2 hours of collection, place feces in preservative. Specimen Stability Information: Ambient (preferred) 96 hours/Refrigerated 96 hours/Frozen 7 days Additional Information: Only diarrheal (ie., unformed) feces should be tested. Testing formed feces for Clostridioides difficile is not clinically indicated. Acceptable: Specimen Type: Unpreserved feces Supplies: -Stool container, Small (Random), 4 oz (T288) -Stool Collection Kit, Random (T635) Container/Tube: Stool container Specimen Volume: Representative portion of stool Collection Instructions: Collect fresh stool and submit representative sample in stool container. Specimen Stability Information: Ambient (preferred) 72 hours/Frozen 7 days Additional Information: Only diarrheal (i.e., unformed) stool should be tested. Testing formed stool for Clostridioides difficile is not clinically indicated. Specimen Type: Fresh tissue or biopsy Sources: Colon Supplies: Anaerobe Transport Tube (T588) Specimen Volume: Entire collection, 1 to 2 cm(3) Collection Instructions: Aseptically collect 1 to 2 cm(3) piece of tissue whenever possible. In general, a larger piece of tissue is preferred. Submit in an anaerobic transport tube. Specimen Stability Information: Ambient 72 hours

Specimen Minimum Volume: Stool: 1 gram or 5 mL; Tissue: 5 mm(3)

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87081-C. difficile Culture; 87076-Anaerobe Ident (if appropriate); 87076-Id MALDI-TOF Mass Spec Anaerobe (if appropriate); 87153-Anaerobe Ident by Sequencing (if appropriate); 87181-Anaerobe Susceptibility per agent (if appropriate); 87181 x 3-Antimicrobial Susceptibility, Anaerobic Bacteria, MIC (if appropriate);

CAMTA
603417

Calmodulin-Binding Transcription Activator 1 (CAMTA1), Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be

rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

BFOS
603419

FosB, Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ALUPP
603463

Lupus Anticoagulant Profile, Plasma

Specimen Requirements:

Specimen Minimum Volume: 3 mL in 3 plastic vials each containing 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85610; 85730; 85613; 85390; 85130 (if appropriate); 85130 (if appropriate); 85210 (if appropriate); 85220 (if appropriate); 85230 (if appropriate); 85240 (if appropriate); 85245 (if appropriate); 85246 (if appropriate); 85247 (if appropriate); 85250 (if appropriate); 85260 (if appropriate); 85270 (if appropriate); 85280 (if appropriate); 85335 (if appropriate); 85335 (if appropriate); 85335 (if appropriate); 85366 (if appropriate); 85379 (if appropriate); 85384 (if appropriate); 85385 (if appropriate); 85390-26 (if appropriate); 85397 (if appropriate); 85597 (if appropriate); 85598 (if appropriate); 85611 (if appropriate); 85613 (if appropriate); 85613 (if appropriate); 85635 (if appropriate); 85670 (if appropriate); 85732 (if appropriate);

ALUPI
603464

Lupus Anticoagulant Profile, Technical Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see ALUPP / Lupus Anticoagulant Profile, Plasma.

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390

ALUPO
603465

Lupus Anticoagulant Profile Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26 Special Coagulation Interpretation

IFTOI
603531

IF Initial, Technical Only (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88346-TC

IFTOA
603532

IF Additional, Technical Only (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88350-TC

IFI26
603533

IF Initial, Professional Only (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88346-26

IFA26
603534

IF Additional, Professional Only (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88350-26

NMS1 603542 Necrotizing Myopathy Evaluation, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: Centrifuge within 2 hours of collection and aliquot serum into a plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255; 82397; 86256 (if appropriate); 84182 (if appropriate);

AVWPR 603550 von Willebrand Disease Profile, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 2 13-mm x 75-mm, 5-mL, Polypropylene vials , each containing 1 mL platelet-poor plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85240-Coagulation factor VIII assay; 85246-von Willebrand factor

antigen; 85397-von Willebrand factor activity; 85390-Technical interpretation; 85245-von Willebrand factor ristocetin cofactor activity (if appropriate); 85247-von Willebrand factor multimer (if appropriate); 85335-Bethesda titer (if appropriate) ; 85335-Coagulation factor VIII inhibitor screen (if appropriate); 85390-26-Special coagulation interpretation (if appropriate);

AVWPI
603551

von Willebrand Disease Profile Technical Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see AVWPR / von Willebrand Disease Profile, Plasma.

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390

CPAVP
603599

Copeptin proAVP, Plasma

Specimen Requirements: Patient Preparation: For water-deprivation testing, for at least 8 hours, the patient should fast and thirst (no liquids, including water, are allowed). Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic screw-top vial Specimen Volume: 0.5 mL Plasma Collection Information: Centrifuge and aliquot plasma into a plastic vial. Do not submit in original tube.

Specimen Minimum Volume: Plasma: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84588

HCVQG
603602

Hepatitis C Virus (HCV) RNA Quantification with Reflex to HCV Genotype, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3.5 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	42 days
	Refrigerated	72 hours

CPT Code Information: 87522; 87902 (if appropriate); 87902 (if appropriate);

ACE
603622

Angiotensin Converting Enzyme, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	24 hours

CPT Code Information: 82164

SP263
603755

Programmed Death-Ligand 1 (PD-L1) (SP263), Semi-Quantitative Immunohistochemistry, Manual

Specimen Requirements: This assay requires at least 100 viable tumor cells. Specimen Type: Tissue Supplies: Pathology Packaging Kit (T554) Submit: Formalin-fixed, paraffin-embedded tissue block OR 3 Unstained glass, "positively charged" slides with 4-microns formalin-fixed, paraffin-embedded tissue Additional Information: 1. One slide will be stained with hematoxylin and eosin and returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

22C3
603762

Programmed Death-Ligand 1 (PD-L1) (22C3), Semi-Quantitative Immunohistochemistry, Manual

Specimen Requirements: This assay requires at least 100 viable tumor cells. Specimen Type: Tissue Supplies: Pathology Packaging Kit (T554) Submit: Formalin-fixed, paraffin-embedded tissue block OR 3 Unstained glass, "positively charged" slides with 4-microns formalin-fixed, paraffin-embedded tissue Additional Information: 1. One slide will be stained with hematoxylin and eosin and returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

SP142
603769

Programmed Death-Ligand 1 (PD-L1) (SP142), Semi-Quantitative Immunohistochemistry, Manual

Specimen Requirements: This assay requires at least 100 viable tumor cells. Specimen Type: Tissue Supplies: Pathology Packaging Kit (T554) Submit: Formalin-fixed, paraffin-embedded tissue block OR 3 Unstained glass, "positively charged" slides with 4-microns formalin-fixed, paraffin-embedded tissue Additional Information: 1. One slide will be stained with hematoxylin and eosin and returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

CHIKC
603832

Chikungunya Virus, PCR, Molecular Detection, Spinal Fluid

Specimen Requirements: Collection Container/Tube: Preferred: Vial number 2 Acceptable: Any vial number Submission Container/Tube: Sterile screw cap vial Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge or heat inactivate.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

CHIKS
603833

Chikungunya Virus, PCR, Molecular Detection, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container: Sterile container Specimen Volume: 0.5 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot the serum into a sterile container. Additional Information: Serum specimens not aliquoted from the serum gel collection tube into a sterile container will be rejected.

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

NMRLP
603839

Nuclear Magnetic Resonance Lipoprotein Profile, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 12 hours, required; On night before examination, evening meal should be eaten before 6 p.m. and should contain no fatty foods. 2. Patient must not consume any alcohol for 24 hours before the specimen is collected. Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Allow isopropyl alcohol (from phlebotomy site prep) to dry thoroughly before venipuncture. 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	14 days
	Ambient	8 hours

CPT Code Information: 83704

VWFMS
603851

von Willebrand Factor Multimer Analysis, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	42 days

CPT Code Information: 85247

RB1
604028

Retinoblastoma Protein (Rb) Immunostain, Tech Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

SFUNG
604094

1,3-Beta-D-Glucan (Fungitell), Serum

Specimen Requirements: Container/Tube: Serum gel (red top tube is not acceptable) Specimen Volume: 1 mL Collection Instructions: 1. Avoid exposure of specimen to atmosphere to prevent environmental contamination of the sample. 2. Centrifuge and send entire specimen in original collection tube. Do not aliquot or open tube.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum SST	Refrigerated (preferred)	14 days	SERUM GEL TUBE
	Frozen	30 days	SERUM GEL TUBE

CPT Code Information: 87449

ULFA
604095

Cryptococcus Antigen Screen, Lateral Flow Assay, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 87899; 87899 (if appropriate);

NSFIB
604200

Nonalcoholic Steatohepatitis (NASH)-FibroTest, Serum and Plasma

Specimen Requirements: Both serum and plasma are required for this test. Patient Preparation: Fasting:12 hours, required Specimen Type: Serum Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Amber vial Specimen Volume: 4 mL Collection Instructions: 1. Centrifuge and aliquot serum into an amber vial within 2 hours of collection. 2. Centrifuged serum must be light protected within 4 hours of collection. It is acceptable to draw the blood and then protect it from light after centrifugation as long as it's within 4 hours of collection. 3. Label specimen as serum. Specimen Type: Plasma Collection Container/Tube: Gray top (potassium oxalate/sodium fluoride) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge and aliquot plasma into plastic vial. 2. Label specimen as plasma.

Specimen Minimum Volume: Serum: 2 mL Plasma: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Plasma NaFl-KOx	Refrigerated (preferred)	7 days	
	Frozen	14 days	
	Ambient	7 days	
Serum	Refrigerated (preferred)	7 days	LIGHT PROTECTED
	Frozen	14 days	LIGHT PROTECTED
	Ambient	24 hours	LIGHT PROTECTED

CPT Code Information: 0003M

ORXNA
604230

Orexin-A/Hypocretin-1, Spinal Fluid

Specimen Requirements: Patient Preparation: Patient should not have recently received radioisotopes, either therapeutically or diagnostically, due to potential assay interference. Collection Container/Tube: Sterile vial Submission Container/Tube: Plain vial with no additives Specimen Volume: 1.5 mL Pediatric Volume: 0.5 mL Collection Instructions: 1. Obtain aliquot from second collection vial (preferred, not required). 2. Hemolyzed specimens will give false-positive results. Specimens should be centrifuged to remove any red cells prior to shipping.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	120 days
	Refrigerated	7 days
	Ambient	72 hours

CPT Code Information: 83519

TOSU
604261

Targeted Opioid Screen, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: G0481 80364 (if appropriate for select payers)

TBSU
604262

Targeted Benzodiazepine Screen, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: G0480; 80347 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

ULFAT 604369 Cryptococcus Antigen Titer, Lateral Flow Assay, Urine (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see ULFA / Cryptococcus Antigen Screen, Lateral Flow Assay, Random, Urine. Supplies: Urine Tubes, 10 mL (T068) Submission Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 87899

HCVDR 604410 Hepatitis C Virus Genotypic Antiviral Drug Resistance, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2.5 mL serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial. Specimens sent in serum gel tubes will be canceled.

Specimen Minimum Volume: Serum: 1.6 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum SST	Frozen (preferred)	60 days	ALIQUOT TUBE
	Refrigerated	7 days	ALIQUOT TUBE

CPT Code Information: 87900; 87902; 87999 (if appropriate for government payers);

VWFMP 604411 von Willebrand Factor Multimer Analysis, Plasma (Non-

Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ALUPP / Lupus Anticoagulant Profile, Plasma ALBLD / Bleeding Diathesis Profile, Limited, Plasma AVWPR / von Willebrand Disease Profile, Plasma

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	42 days

CPT Code Information: 85247

NPM1Q
604418

Nucleophosmin (NPM1) Mutation Analysis, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD-B) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix whole blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as whole blood. Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) or yellow top (ACD-B) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: Whole blood: 8 mL; Bone marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	5 days
	Ambient	72 hours

CPT Code Information: 81310-NPM1 (nucleophosmin) (eg, acute myeloid leukemia) gene analysis; exon 12 variants

HG34W
604697

Histone 3.3 G34W (H3F3A G34W) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per

test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

HK36M
604699

Histone H3 K36M Mutant (H3F3 K36M) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MPSER
604905

Mucopolysaccharides Quantitative, Serum

Specimen Requirements: Patient Preparation: For 6 hours before specimen collection, patient should not receive heparin. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Pediatric: 0.2 mL Collection Instructions: 1. Do not collect specimen from a line that may have been used to infuse heparin or has been flushed with heparin. 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	90 days
	Frozen	90 days
	Ambient	14 days

CPT Code Information: 83864

AERMC
604916

Aeromonas Culture, Feces

Specimen Requirements: Patient Preparation: Patient should not use barium or bismuth for 7 to 10 days before specimen collection. Supplies: Culture and Sensitivity Stool Transport Vial (T058) Specimen Type: Preserved feces Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of non-nutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S) Specimen Volume: Representative portion of fecal specimen Collection Instructions: 1. Collect fresh feces and submit 1 gram or 5 mL in container with transport medium. 2. Within 2 hours of collection, place feces in preservative. 3. Place vial in a sealed plastic bag.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 87046-Aeromonas Culture, Feces-with isolation and preliminary examination; 87077-Bacteria Identification (if appropriate); 87153-Aerobe Ident by Sequencing (if appropriate); 87077-Additional Identification Procedure (if appropriate); 87077-Ident by MALDI-TOF mass spec (if appropriate);

AMISO
604930

Amylase, Isoenzymes, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 82150 x 2

HTLVC
604934

Human T-Cell Lymphotropic Virus Types 1 and 2 (HTLV-1/-2) Antibody Screen with Confirmation, Spinal Fluid

Specimen Requirements: Collection Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: Submit spinal fluid (CSF) specimen from collection vial number 2, 3, or 4 (preferred). If vial number is not provided, then only clear CSF without visible hemolysis or xanthochromia will be accepted for testing.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	30 days
	Refrigerated	14 days

CPT Code Information: 86790; 86689 (if appropriate);

HTLLC
604935

Human T-Cell Lymphotropic Virus Types 1 and 2 (HTLV-1/-2) Antibody Confirmation, Spinal Fluid

Specimen Requirements: Collection Container/Tube: Sterile vial Specimen Volume: 0.5 mL Collection Instructions: Submit spinal fluid (CSF) specimen from collection vial number 2, 3, or 4 (preferred). If vial number is not provided, then only clear CSF without visible hemolysis or xanthochromia will be accepted for testing.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	30 days
	Refrigerated	14 days

CPT Code Information: 86689

NMHR
604981

N-Methylhistamine, Random, Urine

Specimen Requirements: Patient Preparation: Patients taking monoamine oxidase inhibitors (MAOIs) may have increased levels of N-methylhistamine. If medically feasible, for 2 weeks before specimen collection, patient should not take MAOIs. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic vial Specimen Volume: 5 mL Collection Instructions: 1. Within a few hours of symptom onset, collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82542; 82570;

A1AFS
604982

Alpha-1-Antitrypsin Clearance, Feces and Serum

Specimen Requirements: Both feces and serum are required. Blood must be drawn during the stool collection period. Specimen Type: Serum Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top or serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial Specimen Type: Feces Supplies: Stool Containers - 24, 48, 72 Hour Kit (T291) Container/Tube: Stool container Specimen Volume: Entire collection Collection Instructions: 1. Collect a 24-hour fecal collection. 2. If no specimen is obtained within 24 hours, extend collection time to 48 to 72 hours. Document duration.

Specimen Minimum Volume: Homogenized feces: 1 mL; Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen (preferred)	14 days
	Ambient	14 days
	Refrigerated	14 days
Serum	Frozen (preferred)	28 days
	Ambient	28 days
	Refrigerated	28 days

CPT Code Information: 82103 x 2

ACC
604986

Adrenal Mass Panel, 24 Hour, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic urine tube Specimen Volume: 4 mL Collection Instructions: 1. Collect urine for a full 24 hours (required) and record the total volume. 2. Do not add preservatives. Specimens containing preservatives will be canceled. 3. Entire 24 hour collection must be mixed well prior to aliquoting into a 5 mL plastic tube. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	90 days
	Refrigerated	14 days

CPT Code Information: 0015M

VITB3
604987

Vitamin B3 and Metabolites, Plasma

Specimen Requirements: Patient Preparation: Fasting: 4 hours, preferred but not required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Lavender top (K2 EDTA) Acceptable: K3 EDTA Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Plasma Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	21 days

CPT Code Information: 84591

HK27M
604989

Histone H3 K27M Mutant (H3 K27M) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

VWD8B
605011

von Willebrand Disease 2N (Subtype Normandy), Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	56 days

CPT Code Information: 85246

NMHR1
605015

N-Methylhistamine, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see NMHR / N-Methylhistamine, Random, Urine. Patient Preparation: Patients taking monoamine oxidase inhibitors (MAOIs) may have increased levels of N-methylhistamine. If medically feasible, for 2 weeks before specimen collection, patient should not take MAOIs. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: 1. Within a few hours of symptom onset, collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82542

MUCN2
605116

Mucin 2, Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MUCN5
605118

Mucin 5AC, Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed,

paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

MUCN6
605120

Mucin 6, Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

VITAP
605124

Vitamin A, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see VITAE / Vitamin A and Vitamin E, Serum. Patient Preparation: 1. Fasting: 12 hours, required; Infants should have specimen collected before next feeding 2. Patient must not consume any alcohol for 24 hours before specimen collection. Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Amber vial Specimen Volume: 0.5 mL serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into light protected plastic vial.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	28 days	LIGHT PROTECTED
	Frozen	28 days	LIGHT PROTECTED
	Ambient	7 days	LIGHT PROTECTED

CPT Code Information: 84590

MAS1 605125 Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, collect specimen before starting immunosuppressant medication or intravenous immunoglobulin treatment. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 15; 86053; 86363; 86341; 84182 AGNBS (if appropriate); 86256 AGNTS (if appropriate); 86256 APHTS (if appropriate); 84182 AMIBS (if appropriate); 84182 AN1BS (if appropriate); 86256 AN1TS (if appropriate); 84182 AN2BS (if appropriate); 86256 AN2TS (if appropriate); 86256 AN3TS (if appropriate); 86255 APBCS (if appropriate); 86256 APBTS (if appropriate); 86256 CRMTS (if appropriate) 84182 CRMWS (if appropriate); 86256 DPPTS (if appropriate); 86256 GABIS (if appropriate); 84182 MP1BS (if appropriate); 86255 GL1CS (if appropriate); 86256 GL1TS (if appropriate); 86363 MOGTS (if appropriate); 86255 NCDCS (if appropriate); 86256 NCDTS (if appropriate); 86053 NMOTS (if appropriate); 84182 PC1BS (if appropriate); 86256 PC1TS (if appropriate); 86256 PC2TS (if appropriate); 86255 SP7CS (if appropriate); 86256 SP7TS (if appropriate); 86255 T46CS (if appropriate); 86256 T46TS (if appropriate);

MAC1 605126 Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Preferred: Collection vial number 1 Acceptable: Any collection vial Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 17; 86053; 86341; 84182 AGNBC (if appropriate); 86256 AGNTC (if appropriate); 86255 AINCC (if appropriate); 86256 APHTC (if appropriate); 84182 AMIBC (if appropriate); 84182 AN1BC (if appropriate); 86256 AN1TC (if appropriate); 84182 AN2BC (if appropriate); 86256 AN2TC (if appropriate); 86256 AN3TC (if appropriate); 86255 APBCC (if appropriate); 86256 APBTC (if appropriate); 86256 CRMTC (if appropriate) 84182 CRMWC (if appropriate); 86256 DPPTC (if appropriate); 86256 GABIC (if appropriate); 86255 GFACC (if appropriate); 86256 GFATC (if appropriate); 84182 MP1BC (if appropriate); 86255 GL1CC (if appropriate); 86256 GL1TC (if appropriate); 86255 NCDCC (if appropriate); 86256 NCDTC (if appropriate); 86255 NFHCC (if appropriate); 86256 NIFTC (if appropriate); 86255 NFLCC (if appropriate); 86053 NMOTC (if appropriate); 84182 PC1BC (if appropriate); 86256 PC1TC (if appropriate); 86256 PC2TC (if appropriate); 86255 SP7CC (if appropriate); 86256 SP7TC (if appropriate); 86255 T46CC (if appropriate); 86256 T46TC (if appropriate);

PCDES
605129

Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, specimen collection is recommended prior to initiation of immunosuppressant medication or intravenous immunoglobulin treatment. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86341; 86363; 86053; 86255 x 12; 86256 AMPIS (if appropriate); 84182 AN1BS (if appropriate); 86256 AN1TS (if appropriate); 84182 AN2BS (if appropriate); 86256 DPPTS (if appropriate); 86256 GABIS (if appropriate); 86255 GL1CS (if appropriate); 86256 GL1TS (if

appropriate); 86255 GL5CS (if appropriate); 86256 GL5TS (if appropriate); 86363 MOGTS (if appropriate); 86255 NCDCS (if appropriate); 86256 NCDTS (if appropriate); 86256 NMDIS (if appropriate); 86053 NMOTS (if appropriate); 84182 PCTBS (if appropriate); 86256 PCTTS (if appropriate);

PCDEC
605130

Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Preferred: Collection vial number 1 Acceptable: Any collection vial Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 13; 86341; 86053; 86256 AMPIC (if appropriate); 84182 AN1BC (if appropriate); 86256 AN1TC (if appropriate); 84182 AN2BC (if appropriate); 86256 DPPTC (if appropriate); 86256 GABIC (if appropriate); 86255 GFACC (if appropriate); 86256 GFATC (if appropriate); 86255 GL1CC (if appropriate); 86256 GL1TC (if appropriate); 86255 GL5CC (if appropriate); 86256 GL5TC (if appropriate); 86255 NCDCC (if appropriate); 86256 NCDTC (if appropriate); 86256 NMDIC (if appropriate); 86053 NMOTC (if appropriate); 84182 PCTBC (if appropriate); 86256 PCTTC (if appropriate);

GFATS
605133

Glial Fibrillary Acidic Protein Alpha Subunit Antibody, Immunofluorescence Titer Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see PNEFS / Neuroimmunology Antibody Follow-up, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

GFATC
605134

Glial Fibrillary Acidic Protein Alpha Subunit Antibody, Immunofluorescence Titer Assay, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information, see: DMC2 / Dementia Autoimmune Evaluation, Spinal Fluid ENC2 / Encephalopathy Autoimmune Evaluation, Spinal Fluid EPC2 / Epilepsy Autoimmune Evaluation, Spinal Fluid MAC1 / Autoimmune Myelopathy Evaluation, Spinal Fluid Container/Tube: Sterile vial Specimen Volume: 2 mL

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

NMH24
605135

N-Methylhistamine, 24 Hour, Urine

Specimen Requirements: Patient Preparation: Patients taking monoamine oxidase inhibitors (MAOIs) may have increased levels of N-methylhistamine. If medically feasible, for 2 weeks before specimen collection, patient should not take MAOIs. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect urine for 24 hours. 2. No preservative. 3. Aliquot into plastic tube and send at refrigerate temperature. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82542

CLIR
605136

CLIR Supplemental Report

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

NMH1D
605159

N-Methylhistamine, 24 Hour, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see NMH24 / N-Methylhistamine, 24 Hour, Urine. Patient Preparation: Patients taking monoamine oxidase inhibitors (MAOIs) may have increased levels of N-methylhistamine. If medically feasible, for 2 weeks before specimen collection, patient should not take MAOIs. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect urine for 24 hours. 2. No preservative. 3. Aliquot into plastic tube and send at refrigerate temperature.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82542

BTIA1
605160

T-Cell Intracellular Antigen 1 (TIA-1) Immunostain, Bone Marrow, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CFMP
605197

Cystic Fibrosis, CFTR Gene, Variant Panel, Varies

Specimen Requirements: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 81220; 81222;

CGPH
605198

Custom Gene Panel, Hereditary, Next-Generation Sequencing,

Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For instructions about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: CPT codes are based on the gene content of the custom gene panel. Refer to the Custom Gene Ordering Tool for custom gene panel specific CPT code information.; 81165 (if appropriate); 81166 (if appropriate); 81167 (if appropriate); 81162 (if appropriate); 81201 (if appropriate); 81216 (if appropriate); 81218 (if appropriate); 81223 (if appropriate); 81249 (if appropriate); 81252 (if appropriate); 81286 (if appropriate); 81292 (if appropriate); 81295 (if appropriate); 81298 (if appropriate); 81307 (if appropriate); 81317 (if appropriate); 81319 (if appropriate); 81321 (if appropriate); 81329 (if appropriate); 81351 (if appropriate); 81403 (if appropriate); 81404 (if appropriate); 81405 (if appropriate); 81406 (if appropriate); 81407 (if appropriate); 81408 (if appropriate); 81430 (if appropriate); 81431 (if appropriate); 81432 (if appropriate); 81435 (if appropriate); 81437 (if appropriate); 81440 (if appropriate); 81441 (if appropriate); 81443 (if appropriate); 81448 (if appropriate); 81479 (if appropriate); 81189 (if appropriate); 81419 (if appropriate);

THSIF
605244

Thrombospondin Type 1 Domain Containing 7A (THSD7A), Immunofluorescence

Specimen Requirements: Specimen Type: Kidney tissue Preferred: 2 Unstained positively charged glass slide (25- x 75- x 1-mm) per test ordered; paraffin sections 3 to 4-microns thick Acceptable: Formalin-fixed, paraffin-embedded (FFPE) kidney tissue block Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 88346-Primary IF; 88350-If additional IF;

APOL1
605251

APOL1 Genotype, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: Blood: 0.4 mL Saliva/DNA: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

BTB46
605254

ZBTB46 Immunostain, Technical Component Only

Specimen Requirements: Supplies: Immunostain Technical Only Envelope (T693) Specimen Type: Tissue Container/Tube: Immunostain Technical Only Envelope Preferred: 2 Unstained positively charged glass slide (25- x 75- x 1-mm) per test ordered; sections 4-microns thick. Acceptable: Formalin-fixed, paraffin-embedded tissue block Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

BCOR
605260

BCOR Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

VITAE
605267

Vitamin A and Vitamin E, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 12 hours, required; infants should have specimen collected before next feeding. 2. Patient must not consume any alcohol for 24 hours before specimen collection. Supplies: Amber Frosted Tube, 5 mL (T915) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Amber vial Specimen Volume: 1 mL serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a light protected plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	28 days	LIGHT PROTECTED
	Frozen	28 days	LIGHT PROTECTED
	Ambient	7 days	LIGHT PROTECTED

CPT Code Information: 84446; 84590;

KIDST
605761

Kidney Stone Analysis

Specimen Requirements: Supplies: Stone Analysis Collection Kit (T550) Sources: Bladder, kidney, prostatic, renal, or urinary Specimen Volume: Entire dried calculi specimen Collection Instructions: 1. Have patient collect specimen using the Patient Collection Instructions for Kidney Stones. 2. For detailed instructions on kidney stone preparation and packaging, see Kidney Stone Packaging Instructions. 3. Prepare stone by cleaning any blood or foreign material from the stone with deionized water. 4. Place stone on a clean filter or paper towel and let dry at ambient temperature for a minimum of 24 hours. 5. Do not place stone directly in a bag. If specimen is received in a bag, either transfer stone into a screw-capped, plastic container or place bag containing stone in a screw-capped, plastic container. 6. Indicate source of specimen on the outside of the container (eg, left kidney, bladder, right ureter). 7. Repeat steps 2 through 5 for each stone received. Specimen Stability Information: Ambient (preferred) 2 years/Refrigerated 1 year/Frozen 1 year

Specimen Minimum Volume: Entire stone

Transport Temperature:

Specimen Type	Temperature	Time
Stone	Ambient (preferred)	
	Frozen	365 days
	Refrigerated	365 days

CPT Code Information: 82365

TULAB 605950 Francisella tularensis Antibody, IgM and IgG, ELISA, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 86668 x 2

TULM 605951 Francisella tularensis Antibody, IgM, ELISA, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see TULAB / Francisella tularensis Antibody, IgM and IgG, ELISA, Serum. Supplies: Sarstedt Aliquot Tube, 5mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 86668

TULG
605952

Francisella tularensis Antibody, IgG, ELISA, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see TULAB / Francisella tularensis Antibody, IgM and IgG, ELISA, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 86668

TULI
605953

Francisella tularensis Antibody, IgM and IgG, Technical Interpretation, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see TULAB / Francisella tularensis Antibody, IgM and IgG, ELISA, Serum.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

MA2ES
605970

Ma2 Antibody by ELISA, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 83516

MA2EC
605971

Ma2 Antibody, ELISA, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Preferred: Collection vial number 1 Acceptable: Any collection vial Specimen Volume: 1 mL

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 83516

PCPDS
606079

Plasma Cell Proliferative Disorder, High Risk with Reflex Probes, Diagnostic FISH Evaluation, Bone Marrow

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 4 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 88271 x 2, 88274, 88291-FISH Probe, Analysis, Interpretation; 1 probe set; 88271 x 2, 88274-FISH Probe, Analysis; each additional probe set (if appropriate);

MPCDS
606090

mSMART, Plasma Cell Proliferative Disorder, FISH, Bone Marrow (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see MSMRT / Mayo Algorithmic Approach for Stratification of Myeloma and Risk-Adapted Therapy Report, Bone Marrow. Specimen Type: Redirected bone marrow Preferred: Yellow top (ACD) Acceptable: Lavender top (EDTA) or green top (heparin) Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x 2, 88274, 88291-FISH Probe, Analysis, Interpretation; 1 probe set; 88271 x 2, 88274-FISH Probe, Analysis; each additional probe set (if appropriate);

CMMPP
606103

Cobalamin, Methionine, and Methylmalonic Acid Pathways, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium or lithium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Immediately place specimen on ice. 2. Within 4 hours of collection, centrifuge and aliquot plasma into plastic vial. Note: If blood cannot be placed on wet ice immediately, centrifuge and aliquot plasma into a plastic vial within 1 hour of collection. 3. A refrigerated centrifuge is not required if the above time restrictions are met.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Refrigerated (preferred)	28 days
	Frozen	309 days
	Ambient	28 days

CPT Code Information: 83090; 83918; 82136; 82542 (if appropriate for government payers);

CMMPS
606111

Cobalamin, Methionine, and Methylmalonic Acid Pathways, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Within 4 hours of collection, centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	309 days
	Ambient	28 days

CPT Code Information: 83090; 83918; 82136; 82542 (if appropriate for government payers);

CRDPP
606130

Creatine Disorders Panel, Plasma

Specimen Requirements: Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium heparin), yellow top (ACD) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot plasma into plastic vial. Send plasma frozen.

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	14 days
	Refrigerated	7 days
	Ambient	72 hours

CPT Code Information: 82540; 82565; 82542;

CRDPS
606131

Creatine Disorders Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial. Send serum frozen.

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Refrigerated	7 days
	Ambient	72 hours

CPT Code Information: 82540; 82565; 82542;

PSYR
606145

Psychosine, Whole Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium heparin, lithium heparin) Specimen Volume: 2 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated	7 days

CPT Code Information: 82542

PSYCF
606146

Psychosine, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial. Specimen Volume: 0.15 mL Collection Instructions: Do not aliquot.

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen	7 days

CPT Code Information: 82542

CTSU
606147

Ceramide Trihexosides and Sulfatides, Random, Urine

Specimen Requirements: Patient Preparation: Prior to urine collection, patient should not use baby wipes or wipes containing soaps as these may interfere with testing. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic, 5-mL urine tube Specimen Volume: 2 mL Collection Instructions: Collect a first-morning, random urine specimen. Specimen Stability Information: Refrigerated (preferred) 45 days/Ambient 45 days/Frozen 19 months

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	45 days
	Ambient	45 days
	Frozen	

CPT Code Information: 83789

MCSTP
606162

MayoComplete Solid Tumor Panel, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. However, 40% tumor is preferred. -Preferred amount of tumor area: 432 mm(2) tissue on up to 20 unstained slides -Minimum amount of tumor area: 72 mm(2) tissue on up to 20 unstained slides -Tissue fixation: 10% neutral

buffered formalin, not decalcified -For this test, at least 4.6 mm x 4.6 mm areas on 20 unstained slides is preferred: this is approximately equivalent to 432 mm(2). The minimum acceptable area is 1.9 mm x 1.9 mm on 20 unstained slides: approximately equivalent to 72 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 20 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 20 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 20 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (Diff-Quik, Pap-stained direct smears, or ThinPrep) Slides: 2 to 6 Slides Collection Instructions: Submit at least 2 slides, stained and coverslipped, with a total of 10,000 nucleated cells (preferred) or at least 2000 nucleated cells (minimum) per slide. Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81459; 88381-Microdissection, manual;

PM3CX
606164

Lymph3Cx Assay, Primary Mediastinal Large B-cell Lymphoma and Diffuse Large B-cell Lymphoma, mRNA Gene Expression, NanoString, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin stained and 6 to 10 unstained Collection Instructions: 1. Submit 1 slide stained with hematoxylin and eosin. 2. If the formalin-fixed paraffin-embedded (FFPE) biopsy specimen is a core needle biopsy or fine needle aspirate, submit 10 unstained slides. 3. If the FFPE biopsy specimen is a resection, submit 6 unstained slides. 4. Submitted slides should be 4- to 5-micron thick sections placed on positively charged slides. Additional Information: Paraffin embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). Acceptable: Specimen Type: Tissue block Collection Instructions: Submit an FFPE tumor tissue block. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Minimum 60% tumor with or without macrodissection. Minimum required unstained tissue section input: 0.12 mm(3); Slides: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Tissue, Paraffin	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 0120U; 88381;

MDS2
606192

Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, collect specimen before starting immunosuppressant medication or intravenous immunoglobulin treatment. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86596; 86255 x 26; 83516; 86341; 0432U; 84182 AGNBS (if appropriate); 86256 AGNTS (if appropriate); 86256 AMPIS (if appropriate); 86256 APHTS (if appropriate); 84182 AMIBS (if appropriate); 84182 AN1BS (if appropriate); 86256 AN1TS (if appropriate); 84182 AN2BS (if appropriate); 86256 AN2TS (if appropriate); 86256 AN3TS (if appropriate); 86255 APBCS (if appropriate); 86256 APBTS (if appropriate); 86256 CRMTS (if appropriate); 84182 CRMWS (if appropriate); 86256 DPPTS (if appropriate); 86256 GABIS (if appropriate); 86255 GRFCS (if appropriate); 86256 GRFTS (if appropriate); 86256 IG5TS (if appropriate); 86255 ITPCS (if appropriate); 86256 ITPTS (if appropriate); 86256 K11TS (if appropriate); 84182 MP1BS (if appropriate); 86255 GL1CS (if appropriate); 86256 GL1TS (if appropriate); 86255 GL5CS (if appropriate); 86256 GL5TS (if appropriate); 86255 NCDCS (if appropriate); 86256 NCDTS (if appropriate); 86256 NMDIS (if appropriate); 84182 PC1BS (if appropriate); 86256 PC1TS (if appropriate); 86256 PC2TS (if appropriate); 84182 PCTBS (if appropriate); 86256 PCTTS (if appropriate); 86256 PDETS (if appropriate); 86255 SP5CS (if appropriate); 86256 SP5TS (if appropriate); 86255 SP7CS (if appropriate); 86256 SP7TS (if appropriate); 86255 T46CS (if appropriate); 86256 T46TS (if appropriate);

MDC2
606193

Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Specimen Requirements: Patient Preparation: For optimal antibody detection, collect specimen before starting immunosuppressant medication, corticosteroids, or intravenous immunoglobulin treatment. Container/Tube: Sterile vial Preferred: Collection vial number 1 Acceptable: Any collection vial Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x28; 83516; 86341; 0432U; 84182 AGNBC (if appropriate); 86256 AGNTC (if appropriate); 86255 AINCC (if appropriate); 86256 AMPIC (if appropriate); 86256 APHTC (if appropriate); 84182 AMIBC (if appropriate); 84182 AN1BC (if appropriate); 86256 AN1TC (if appropriate); 84182 AN2BC (if appropriate); 86256 AN2TC (if appropriate); 86256 AN3TC (if appropriate); 86255 APBCC (if appropriate); 86256 CRMTC (if appropriate); 84182 CRMWC (if appropriate); 86256 DPPTC (if appropriate); 86256 GABIC (if appropriate); 86255 GFACC (if appropriate); 86256 GFATC (if appropriate); 86255 GRFCC (if appropriate); 86256 GRFTC (if appropriate); 86256 IG5TC (if appropriate); 86255 ITPCC (if appropriate); 86256 ITPTC (if appropriate); 86256 K11TC (if appropriate); 84182 MP1BC (if appropriate); 86255 GL1CC (if appropriate); 86256 GL1TC (if appropriate); 86255 GL5CC (if appropriate); 86256 GL5TC (if appropriate); 86255 NCDCC (if appropriate); 86256 NCDTC (if appropriate); 86255 NFHCC (if appropriate); 86256 NIFTC (if appropriate); 86255 NFLCC (if appropriate); 86256 NMDIC (if appropriate); 84182 PC1BC (if appropriate); 86256 PC1TC (if appropriate); 86256 PC2TC (if appropriate); 84182 PCTBC (if appropriate); 86256 PCTTC (if appropriate); 86256 PDETC (if appropriate); 86255 SP5CC (if appropriate); 86256 SP5TC (if appropriate); 86255 SP7CC (if appropriate); 86256 SP7TC (if appropriate); 86255 T46CC (if appropriate); 86256 T46TC (if appropriate);

CAMPC
606218

Campylobacter Culture, Feces

Specimen Requirements: Patient Preparation: Patient should not use barium or bismuth for 7 to 10 days before specimen collection. Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of non-nutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S) Specimen Volume: Representative portion of fecal specimen Collection Instructions: 1. Collect fresh feces and submit 1 gram or 5 mL in container with transport medium. 2. Within 2 hours of collection, place feces in preservative. 3. Place vial in a sealed plastic bag.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 87046-Campylobacter Culture, Stool-with isolation and preliminary examination; 87077-Bacteria Identification (if appropriate); 87153-Aerobe Ident by Sequencing (if appropriate); 87077-Additional Identification Procedure (if appropriate); 87077-Ident by MALDI-TOF mass spec (if appropriate);

E157C
606219

Escherichia coli O157:H7 Culture, Feces

Specimen Requirements: Patient Preparation: Patient should not use barium or bismuth for 7 to 10 days before specimen collection. Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of non-nutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S) Specimen Volume: Representative portion of fecal specimen Collection Instructions: 1. Collect fresh feces and submit 1 gram or 5 mL in container with transport medium. 2. Within 2 hours of collection, place feces in preservative 3. Place vial in a sealed plastic bag.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 87046-Escherichia coli O157:H7 Culture, Stool-with isolation and preliminary examination; 87077-Bacteria Identification (if appropriate); 87153-Aerobe Ident by Sequencing (if appropriate); 87077-Additional Identification Procedure (if appropriate); 87147-Serologic Agglut Method 2 Ident (if appropriate); 87077-Ident by MALDI-TOF mass spec (if appropriate);

SALMC
606220

Salmonella Culture, Feces

Specimen Requirements: Patient Preparation: Patient should not use barium or bismuth for 7 to 10 days before specimen collection. Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of non-nutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S) Specimen Volume: Representative portion of fecal specimen Collection Instructions: 1. Collect fresh feces and submit 1 gram or 5 mL in container with transport medium. 2. Within 2 hours of collection, place feces in preservative. 3. Place vial in a sealed plastic bag.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 87046-Salmonella Culture, Stool-with isolation and preliminary examination; 87077-Bacteria Identification (if appropriate); 87153-Aerobe Ident by Sequencing (if appropriate); 87077-Additional Identification Procedure (if appropriate); 87147 x 1-3-Serologic Agglut Method 1 Ident (if appropriate); 87077-Ident by MALDI-TOF mass spec (if appropriate);

SHIGC
606221

Shigella Culture, Feces

Specimen Requirements: Patient Preparation: The patient should not use antacids, barium, bismuth, antidiarrheal medication, or oily laxatives for 7 to 10 days before specimen collection. Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of non-nutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S) Specimen Volume: Representative portion of fecal specimen Collection Instructions: 1. Collect fresh feces and submit 1 gram or 5 mL in container with transport medium. 2. Within 2 hours of collection, place feces in preservative. 3. Place vial in a sealed plastic bag.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 87046-Shigella Culture, Stool-with isolation and preliminary examination; 87077-Bacteria Identification (if appropriate); 87153-Aerobe Ident by Sequencing (if appropriate); 87077-Additional Identification Procedure (if appropriate); 87147 x 4-Serologic Agglut Method 3 Ident (if appropriate); 87077-Ident by MALDI-TOF mass spec (if appropriate);

YERSC
606222

Yersinia Culture, Feces

Specimen Requirements: Patient Preparation: Patient should not use barium or bismuth for 7 to 10 days before specimen collection. Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of non-nutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S) Specimen Volume: Representative portion of fecal specimen Collection Instructions: 1. Collect fresh feces and submit 1 gram or 5 mL in container with transport medium. 2.

Within 2 hours of collection, place feces in preservative. 3. Place vial in a sealed plastic bag.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 87046-Yersinia Culture, Stool-with isolation and preliminary examination; 87077-Bacteria Identification (if appropriate); 87153-Aerobe Ident by Sequencing (if appropriate); 87077-Additional Identification Procedure (if appropriate); 87077-Ident by MALDI-TOF mass spec (if appropriate);

CAIX 606251 Carbonic Anhydrase IX (CA-IX) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

AGAW 606261 Alpha-Galactosidase, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 82657

ASMW
606264

Acid Sphingomyelinase, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 82657

GAAW
606267

Acid Alpha-Glucosidase, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 82657

GALCW
606270

Galactocerebrosidase, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 82657

GBAW
606273

Beta-Glucosidase, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send specimen in whole blood original tube. Do not aliquot.

Specimen Minimum Volume: 4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 82963

IDUAW
606276

Alpha-L-Iduronidase, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 82657

MPSQU
606299

Mucopolysaccharides Quantitative, Random, Urine

Specimen Requirements: Patient Preparation: For 6 hours before specimen collection, patient should not receive heparin. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic, 5-mL urine tube Specimen Volume: 2 mL Pediatric Volume: 1 mL Collection Instructions: Collect a random urine specimen (early morning preferred).

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	90 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 83864; 82570;

IHCFH
606334

Fumarate Hydratase Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

GALMP
606343

Galactosemia, GALT Gene, Variant Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81401

COSY
606352

Cobalt, Synovial Fluid

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free EDTA 3 mL Tube (T989) -Metal Free B-D Tube (EDTA), 6 mL (T183) Container/Tube: Preferred: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (T989) (BD catalog no. 367777) Acceptable: Royal blue-top BD vacutainer with EDTA blood collection tube (6mL) (BD Catalog no. 368381) (T183) Specimen Volume: 1 mL Collection Instructions: See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: Cobalt is present in the black rubber plunger seals found in most disposable syringes. As a result, synovial fluid should not be collected in these devices as contamination may occur.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Synovial Fluid	Refrigerated (preferred)	90 days
	Ambient	90 days
	Frozen	90 days

CPT Code Information: 83018

CRSY
606353

Chromium, Synovial Fluid

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free EDTA 3 mL Tube (T989) -Metal Free B-D Tube (EDTA), 6 mL (T183) Container/Tube: Preferred: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (BD catalog no. 367777) (T989) Acceptable: Royal blue-top BD Vacutainer Plus with EDTA blood collection tube (6 mL) (BD catalog no. 368381) (T183) Specimen Volume: 1 mL Collection Instructions: See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: Chromium is present in the black rubber plunger seals found in most disposable syringes. As a result, synovial fluid should not be collected in these devices as contamination may occur.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Synovial Fluid	Refrigerated (preferred)	90 days
	Ambient	90 days
	Frozen	90 days

CPT Code Information: 82495

RLTE4
606354

Leukotriene E4, Random, Urine

Specimen Requirements: Patient Preparation: Patients taking 5-lipoxygenase inhibitor zileuton (Zyflo) may have decreased concentrations of leukotriene E4. If medically feasible, the patient should not take zileuton for 48 hours before specimen collection. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic vial Specimen Volume: 5 mL Collection Instructions: 1. Within a few hours of symptom onset, collect a random urine specimen. 2. No preservative. 3. Aliquot urine into a plastic vial and send frozen.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	28 days
	Refrigerated	72 hours
	Ambient	8 hours

CPT Code Information: 82542; 82570;

TLTE4
606355

Leukotriene E4, 24 Hour, Urine

Specimen Requirements: Patient Preparation: Patients taking 5-lipoxygenase inhibitor zileuton (Zyflo) may have decreased concentrations of leukotriene E4. If medically feasible, the patient should not take zileuton for 48 hours before specimen collection. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic vial Specimen Volume: 5 mL Collection Instructions: 1. Start collection within a few hours of symptom onset and collect urine for 24 hours 2. No preservative preferred. 3. Aliquot urine into a plastic vial and send frozen. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collection.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	28 days
	Refrigerated	72 hours
	Ambient	8 hours

CPT Code Information: 82542

23BPR
606356

2,3-Dinor 11 Beta-Prostaglandin F2 Alpha, Random, Urine

Specimen Requirements: Patient Preparation: Patients taking aspirin or nonsteroidal anti-inflammatory drugs (NSAIDs) may have decreased concentrations of prostaglandin F2 alpha. If medically feasible, for 2 weeks before specimen collection, patient should not take aspirin and for 72 hours before specimen collection, patient should not take NSAIDs. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: Collect a random urine specimen.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 84150; 82570;

23BPT
606357

2,3-Dinor 11 Beta-Prostaglandin F2 Alpha, 24 Hour, Urine

Specimen Requirements: Patient Preparation: Patients taking aspirin or nonsteroidal anti-inflammatory drugs (NSAIDs) may have decreased concentrations of prostaglandin F2 alpha. If medically feasible, for 2 weeks before specimen collection, patient should not take aspirin and for 72 hours before specimen collection, patient should not take NSAIDs. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect urine refrigerate for 24 hours. 2. No preservative preferred. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 84150

DENGC
606371

Dengue Virus, Molecular Detection, PCR, Spinal Fluid

Specimen Requirements: Collection Container/Tube: Preferred: Vial number 2 Acceptable: Any vial number Submission Container/Tube: Sterile screw cap vial Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge or heat inactivate.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

DENGS
606372

Dengue Virus, Molecular Detection, PCR, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

CRCOF
606424

Chromium and Cobalt, Synovial Fluid

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free EDTA 3mL Tube (T989) -Metal Free B-D Tube (EDTA), 6 mL (T183) Container/Tube: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (BD catalog no. 367777) (T989) Specimen Volume: 1 mL Collection Instructions: See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: Cobalt and

chromium are present in the black rubber plunger seals found in most disposable syringes. As a result, synovial fluid should not be collected in these devices as contamination may occur.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Synovial Fluid	Refrigerated (preferred)	90 days
	Ambient	90 days
	Frozen	90 days

CPT Code Information: 83018; 82495;

IFXED
606458

Immunofixation Heavy Chain Type Delta and Epsilon, Serum

Specimen Requirements: Patient Preparation: Fasting: 8 hours, preferred but not required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 86334

POXA1
606472

Oxalate, Plasma

Specimen Requirements:

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Heparin	Frozen	30 days

CPT Code Information: 83945

DOXA1
606473

Oxalate Analysis, Hemodialysate

Specimen Requirements: Specimen Type: Dialysate fluid Patient Preparation: Patient should avoid taking vitamin C supplements for 24 hours prior to dialysis Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 5 mL Collection Instructions: Adjust the pH of the specimen to 2.5 to 3.0 with 6M Hydrochloric Acid Additional Information: Nonacidified frozen hemodialysate delivered to the laboratory within 3 days from collection will be accepted and the following comment will be added to the result: In nonacidified hemodialysate stored frozen, oxalate values may increase spontaneously.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Dialysate Fluid	Frozen	14 days

CPT Code Information: 83945

EURO
606475

Phospholipase A2 Receptor, Enzyme Linked Immunosorbent Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see PMND1 / Primary Membranous Nephropathy Diagnostic Cascade, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial within 2 hours of collection

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	8 hours

CPT Code Information: 83520

SULFU
606479

Sulfate, 24 Hour, Urine

Specimen Requirements:

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 84392

PHU_
606510

pH, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 10 mL Collections Instructions: Collect a random urine specimen.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 83986

UOSMU
606520

Osmolality, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: Collect a random urine specimen

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 83935

UPH24
606521

pH, 24 Hour, Urine

Specimen Requirements: Supplies: Diazolidinyl Urea (Germall), 5.0 mL (T822) Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube or a clean, plastic aliquot container Specimen Volume: 10 mL Collection Instructions: 1. Collect urine for 24 hours 2. Add 5 mL of diazolidinyl urea as preservative at start of collection or refrigerate specimen during and after collection. 3. Specimen pH should be between 4.5 and 8 and will stay in this range if kept refrigerated. Specimens with pH >8 indicate bacterial contamination, and testing will be cancelled. Do not attempt to adjust pH as it will adversely affect results. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 83986

UPHB
606522

pH, Body Fluid

Specimen Requirements: Container/Tube: Sterile container Submission Container/Tube: Plastic vial Specimen Volume: 5 mL

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Refrigerated (preferred)	7 days
	Frozen	7 days
	Ambient	24 hours

CPT Code Information: 83986

SKETC
606546

Ketones, Urine

Specimen Requirements: Container/Tube: Plastic urine container Specimen Volume: 20 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated	72 hours

CPT Code Information: 81003

SGUR
606565

Specific Gravity, Random, Urine

Specimen Requirements: Container/Tube: Plastic urine container Specimen Volume: 20 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 81005

C2729
606583

Breast Carcinoma-Associated Antigen, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. Specimens that have not been aliquoted will be canceled. 2. Send refrigerated.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days
	Ambient	4 days

CPT Code Information: 86300

HCCGS
606585

Hepatocellular Carcinoma Risk Panel with GALAD Score, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Refrigerated	5 days

CPT Code Information: 82107; 83951;

IEHCG
606587

Interference Evaluation Heterophile, Beta-Human Chorionic Gonadotropin, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred:

Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 84702 x 2

AMBF
606595

Amylase, Body Fluid

Specimen Requirements: Specimen Type: Body fluid Preferred Source: -Peritoneal fluid (peritoneal, abdominal, ascites, paracentesis) -Pleural fluid (pleural, chest, thoracentesis) -Drain fluid (drainage, Jackson Pratt [JP] drain) -Pericardial fluid Acceptable Source: Write in source name with source location (if appropriate) Collection Container/Tube: Sterile container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge to remove any cellular material and transfer into a plastic vial. 2. Indicate the specimen source and source location on label.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 82150

UEBF
606598

Urea Nitrogen, Body Fluid

Specimen Requirements: Preferred Source: -Peritoneal fluid (peritoneal, abdominal, ascites, paracentesis) -Pleural fluid (pleural, chest, thoracentesis) -Drain fluid (drainage, Jackson Pratt [JP] drain) -Peritoneal dialysate (dialysis fluid) -Pericardial Acceptable Source: Write in source name with source location (if appropriate) Collection Container/Tube: Sterile container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge to remove any cellular material and transfer into a plastic vial. 2. Indicate the specimen source and source location on label.

Specimen
Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 84520

CRBF
606601

Creatinine, Body Fluid

Specimen Requirements: Specimen Type: Body fluid Preferred Source: -Peritoneal fluid (peritoneal, abdominal, ascites, paracentesis) -Pleural fluid (pleural, chest, thoracentesis) -Drain fluid (drainage, JP drain) -Peritoneal dialysate (dialysis fluid) -Pericardial Acceptable Source: Write in source name with source location (if appropriate) Collection Container/Tube: Sterile container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge to remove any cellular material and transfer into a plastic vial. 2. Indicate the specimen source and source location on label.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 82570

PCHE1
606604

Pseudocholinesterase, Total, Serum

Specimen Requirements: Patient Preparation: For patients with prolonged apnea following surgery, wait at least 24 hours before obtaining specimen. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	365 days
	Ambient	24 hours

CPT Code Information: 82480

GLBF
606609

Glucose, Body Fluid

Specimen Requirements: Specimen Type: Body fluid Preferred Source: -Peritoneal fluid (peritoneal, abdominal, ascites, paracentesis) -Pleural fluid (pleural, chest, thoracentesis) -Drain fluid (drainage, JP drain) -Peritoneal dialysate (dialysis fluid) -Pericardial -Amniotic fluid+ -Synovial fluid -Pancreatic cyst Acceptable Source: Write in source name with source location (if appropriate) Collection Container/Tube: Sterile container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge to remove any cellular material and transfer into a plastic vial. 2. Indicate the specimen source and source location on label.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 82945

LDBF
606612

Lactate Dehydrogenase (LDH), Body Fluid

Specimen Requirements: Specimen Type: Body fluid Preferred Source: -Peritoneal fluid (peritoneal, abdominal, ascites, paracentesis) -Pleural fluid (pleural, chest, thoracentesis) -Drain fluid (drainage, Jackson Pratt [JP] drain) -Pericardial -Synovial -Cerebral spinal fluid Acceptable Source: Write in source name with source location (if appropriate) Collection Container/Tube: Sterile container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge to remove any cellular material and transfer into a plastic vial. 2. Indicate the specimen source and source location on label.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Ambient (preferred)	7 days
	Refrigerated	48 hours

CPT Code Information: 83615

LPSBF
606615

Lipase, Body Fluid

Specimen Requirements: Specimen Type: Body fluid Preferred Sources: -Peritoneal fluid (peritoneal, abdominal, ascites, paracentesis) -Pleural fluid (pleural, chest, thoracentesis) -Drain fluid (drainage, Jackson Pratt [JP] drain) -Pericardial Acceptable Source: Write in source name with source location (if appropriate) Collection Container/Tube: Sterile container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge to remove any cellular material and transfer into a plastic vial. 2. Indicate the specimen source and source location on label.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 83690

TPBF
606619

Protein, Total, Body Fluid

Specimen Requirements: Specimen Type: Body fluid Preferred Source: -Peritoneal fluid (peritoneal, abdominal, ascites, paracentesis) -Pleural fluid (pleural, chest, thoracentesis) -Drain fluid (drainage, JP drain) -Pericardial Acceptable Source: Write in source name with source location (if appropriate) Collection Container/Tube: Sterile container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge to remove any cellular material and transfer into a plastic vial. 2. Indicate the specimen source and source location on label.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 84157

ALBFL
606622

Albumin, Body Fluid

Specimen Requirements: Specimen Type: Body fluid Preferred Source: -Peritoneal fluid (peritoneal, abdominal, ascites, paracentesis) -Pleural fluid (pleural, chest, thoracentesis) -Drain fluid (drainage, JP drain) Acceptable Source: Write in source name with source location (if appropriate) Collection Container/Tube: Sterile container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge to remove any cellular material and transfer into a plastic vial. 2. Indicate the specimen source and source location on label.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 82042

CITR2
606637

Citrate Concentration, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see CITRA / Citrate Excretion, Random, Urine. Patient Preparation: Any drug that causes alkalemia or acidemia may be expected to alter citrate excretion and should be avoided, if possible. The patient must avoid laxative use for24 hours prior to collection. Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 82507

RAT10
606642

Citrate/Creatinine Ratio, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see CITRA / Citrate Excretion, Random, Urine.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 82507

AMMO
606643

Ammonium, 24 Hour, Urine

Specimen Requirements: Supplies: -Sarstedt 5 mL Aliquot Tube (T914) -Diazolidinyl Urea (Germall) 5.0 mL (T822) Container/Tube: Plastic vial Specimen Volume: 4 mL Collection Instructions: 1. Add 5 mL of diazolidinyl urea (Germall) as preservative at start of collection or refrigerate specimen during and after collection. 2. Collect urine for 24 hours. 3. Aliquot urine into plastic vial. 4. Specimens with pH >8 may indicate bacterial contamination and testing will be cancelled. Do not attempt to adjust pH as it will adversely affect results. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 82140

NKX3
606692

NKX3.1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

RAMBO
606709

Ammonium, Random, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic tube Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 82140

CITR
606710

Citrate Excretion, 24 Hour, Urine

Specimen Requirements: Patient Preparation: Any drug that causes alkalemia or acidemia may be expected to alter citrate excretion and should be avoided, if possible. The patient must avoid laxative use

for 24 hour collection period. Supplies: -Diazolidinyl Urea (Germall) 5.0 mL (T822) -Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic tube Specimen Volume: 4 mL Collection Instructions: 1. Add 5 mL of diazolidinyl urea (Germall) as preservative at start of collection or refrigerate specimen during and after collection. 2. Collect urine for 24 hours. 3. Mix well before taking 4-mL aliquot. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information:

CITRA
606715

Citrate Excretion, Random, Urine

Specimen Requirements: Patient Preparation: Any drug that causes alkalemia or acidemia may be expected to alter citrate excretion and should be avoided, if possible. The patient must avoid laxative use for 24 hours prior to collection. Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 82507; 82570;

ALB24
606718

Albumin, 24 Hour, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube ,5 mL (T914) Container/Tube: Plastic urine tube Specimen Volume: 4 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. Mix well before taking 4-mL aliquot. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	7 days

CPT Code Information: 82043

RALB1
606730

Albumin, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -ALBR / Albumin, Random, Urine -RALB / Albumin, Random, Urine. Supplies: Sarstedt 5 mL Aliquot Tube (T914) Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	7 days

CPT Code Information: 82043

A_CR
606732

Albumin/Creatinine Ratio (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: ALBR / Albumin, Random, Urine RALB / Albumin, Random, Urine.

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	7 days

OXU
606737

Oxalate, 24 Hour, Urine

Specimen Requirements: Patient Preparation: For 24 hours before, as well as during the collection process, patient should not take large doses (>2 g orally/24 hours) of vitamin C. Supplies: -Diazolidinyl Urea (Germall) 5.0 mL (T822) -Sarstedt Aliquot Tube, 5mL (T914) Container/Tube: Plastic tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 4 mL Collection Instructions: 1. Add 5 mL of diazolidinyl urea (Germall) as a preservative at start of collection or refrigerate specimen during and after collection. 2. Collect urine for 24 hours. 3. Mix container thoroughly and aliquot urine into plastic vial. 4. Specimen pH should be between 4.5 and 8 and will stay in this range if kept refrigerated. Specimens with pH above 8 indicate bacterial contamination, and testing will be canceled. Do not attempt to adjust pH, as it will adversely affect results. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 83945

ROXUR
606747

Oxalate, Random, Urine

Specimen Requirements: Patient Preparation: Avoid taking large doses (>2 g orally/24 hours) of vitamin C prior to specimen collection. Supplies: Urine Tubes, 10 mL tube (T068) Container/Tube: 10-mL plastic tube or a clean, plastic container with no metal cap Specimen Volume: 7 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. 3. Specimen pH should be between 4.5 and 8 and will stay in this range if kept refrigerated. Specimens with pH above 8 may indicate bacterial contamination, and testing will be cancelled. Do not attempt to adjust pH as it will adversely affect results.

Specimen Minimum Volume: 6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 83945; 82570;

OXCO1
606748

Oxalate, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see ROXUR / Oxalate, Random, Urine. Patient Preparation: Avoid taking large doses (>2 g orally/24 hours) of vitamin C prior to specimen collection. Supplies: Urine Tubes, 10 mL tube (T068) Container/Tube: 10-mL plastic tube or a clean, plastic container with no metal cap Specimen Volume: 7 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. 3. Specimen pH should be between 4.5 and 8 and will stay in this range if kept refrigerated. Specimens with pH above 8 may indicate bacterial contamination, and testing will be cancelled. Do not attempt to adjust pH as it will adversely affect results.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 83945

RAT11
606751

Oxalate/Creatinine Ratio, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see ROXUR / Oxalate, Random, Urine.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

LSDS
606771

Lysosomal Disorders Screen, Random, Urine

Specimen Requirements: Patient Preparation: 1. Do not administer low-molecular weight heparin before specimen collection. 2. Baby wipes or wipes containing soaps or lotions should not be used before specimen collection because these may interfere with results. Supplies: Urine Container, 60 mL (T313) Container/Tube: Clean, plastic urine container with no metal cap or glued insert Specimen Volume: 12 mL Pediatric Volume: 3.5 mL Collection Instructions: 1. Collect a random urine specimen (early morning preferred). 2. No preservative.

Specimen Minimum Volume: 3.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	15 days
	Frozen	90 days

CPT Code Information: 83789; 83864; 84377; 84275;

CERAM
606777

MI-Heart Ceramides, Plasma

Specimen Requirements: Patient Preparation: Patients should not be receiving Intralipid because it may cause false elevations in measured ceramides. Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge, aliquot at least 1 mL of plasma into a plastic vial and freeze within 8 hours.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	30 days
	Refrigerated	24 hours
	Ambient	8 hours

CPT Code Information: 0119U

MPNJM
606805

Myeloproliferative Neoplasm, JAK2 V617F with Reflex to CALR and MPL, Bone Marrow

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Note: Extracted DNA from bone marrow is not acceptable.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81270-JAK2 (Janus kinase 2) (eg, myeloproliferative disorder) gene analysis, p.Val617Phe (V617F) variant; 81219-CALR (calreticulin) (eg, myeloproliferative disorders), gene analysis, common variants in exon 9 (if appropriate); 81339-MPL (myeloproliferative leukemia virus oncogene, thrombopoietin receptor, TPOR) (eg, myeloproliferative disorder), exon 10 sequence (if appropriate);

CALJM
606806

CALR Variant Analysis, Myeloproliferative Neoplasm, Reflex, Bone Marrow (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see MPNJM / Myeloproliferative Neoplasm, JAK2 V617F with Reflex to CALR and MPL, Bone Marrow. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Note: Extracted DNA from bone marrow is not acceptable.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81219-CALR (calreticulin) (eg, myeloproliferative disorders), gene analysis, common variants in exon 9

MPLJM
606807

MPL Exon 10 Variant Detection, Reflex, Bone Marrow (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see MPNJM / Myeloproliferative Neoplasm, JAK2 V617F with Reflex to CALR and MPL, Bone Marrow. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Note: Extracted DNA from bone marrow is not acceptable.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81339

BPAB
606816

Bullous Pemphigoid, BP180 and BP230, IgG Antibodies, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission container/tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 83516 x 2

DSGAB
606818

Desmoglein 1 (DSG1) and Desmoglein 3 (DSG3), IgG

Antibodies, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 83516 x 2

GAL1
606832

GALAD Score, Serum (Non-Orderable

Specimen Requirements:

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Refrigerated	5 days

GAL2
606833

Probability of Hepatocellular Carcinoma, Serum (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Refrigerated	5 days

CH8B
606843

Chromogenic Factor VIII Inhibitor Bethesda Titer, Plasma (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85335

CH8BI
606844

Chromogenic Factor VIII Inhibitor Bethesda Profile Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26

BIOTN
606867

Biotin, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	7 days
	Ambient	24 hours

CPT Code Information: 84591

ALS
606872

Aldolase, Serum

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Within 1 hour of collection, centrifuge and aliquot serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	60 days

CPT Code Information: 82085

TRIGC
606879

Triglycerides, CDC, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see LMPP / Lipoprotein Metabolism Profile, Serum. Patient Preparation: 1. Fasting: 12 hours, required 2. Patient must not consume any alcohol for 24 hours before specimen collection. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	60 days

CPT Code Information: 84478

FIBAG
606887

Fibrinogen Antigen, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Light-blue top (3.2% sodium citrate at 9:1 ratio) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL plasma Collection Instructions: 1. Centrifuge and aliquot plasma into plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 85385

CHLE
606888

Cholesteryl Esters, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial. Send refrigerated.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	60 days
	Ambient	24 hours

CPT Code Information: 84311

NEFA
606892

Free Fatty Acids, Total, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 12 hours, required 2. Patient must not consume any alcohol for 24 hours before the specimen is collected. 3. Patient should not be receiving therapeutic heparin. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Within 45 minutes of collection, centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Immediately freeze specimen.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	7 days

CPT Code Information: 82725

BFBL
606895

Bilirubin, Body Fluid

Specimen Requirements: Supplies: Amber Frosted Tube, 5 mL (T915) Preferred Source: -Peritoneal fluid (peritoneal, abdominal, ascites, paracentesis) -Pleural fluid (pleural, chest, thoracentesis) -Drain fluid (drainage, Jackson Pratt [JP] drain) -Pericardial fluid Acceptable Source: Other body fluid, write in source name with source location (if appropriate) Collection Container/Tube: Sterile container Submission Container/Tube: Opaque, amber vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge to remove any cellular material and transfer into an amber vial to protect from light. 2. Indicate the specimen source and source location on label.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Body Fluid	Frozen (preferred)	70 days	LIGHT PROTECTED
	Refrigerated	14 days	LIGHT PROTECTED

CPT Code Information: 82247

LDLD
606898

Low-Density Lipoprotein (LDL) Cholesterol, Beta-Quantification, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial. Send refrigerated.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	10 days
	Frozen	60 days

CPT Code Information: 83701

HSCRP
606909

C-Reactive Protein, High Sensitivity, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 86141

CHLBF
606915

Cholesterol, Body Fluid

Specimen Requirements: Preferred Source: -Peritoneal fluid (peritoneal, abdominal, ascites, paracentesis) -Pleural fluid (pleural, chest, thoracentesis) -Drain fluid (drainage, JP drain) -Pericardial fluid Acceptable Source: Write in source name with source location (if appropriate) Collection Container/Tube: Sterile container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge to remove any cellular material and transfer into a plastic vial. 2. Indicate the specimen source and source location on label.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Frozen (preferred)	30 days
	Refrigerated	7 days
	Ambient	24 hours

CPT Code Information: 84311-Spectrophotometry, analyte not specified (cholesterol)

TGLBF
606918

Triglycerides, Body Fluid

Specimen Requirements: Specimen Type: Body fluid Preferred Source: -Peritoneal fluid (peritoneal, abdominal, ascites, paracentesis) -Pleural fluid (pleural, chest, thoracentesis) -Drain fluid (drainage, Jackson Pratt [JP] drain) -Pericardial Fluid Acceptable Source: Write in source name with source location (if appropriate) Collection Container/Tube: Sterile container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge to remove any cellular material and transfer into a plastic vial. 2. Indicate the specimen source and source location on label.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Frozen (preferred)	30 days
	Refrigerated	7 days
	Ambient	24 hours

CPT Code Information: 84478

CSU
606921

Chyluria Screen, Random, Urine

Specimen Requirements: Patient Preparation: Before specimen collection, the patient should not ingest foods or beverages rich in vitamin C or take vitamin C supplements. Supplies: Urine Container, 60 mL (T313) Container/Tube: Plastic, 60-mL urine bottle Specimen Volume: 15 mL Collection Instructions: Collect a first-morning, random urine collection.

Specimen Minimum Volume: 15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	10 days
	Refrigerated	10 days
	Ambient	4 hours

CPT Code Information: 82664-Electrophoretic technique, not elsewhere specified (Chylomicrons and lipoproteins); 84311-Spectrophotometry, analyte not specified (Cholesterol); 84478-Triglycerides;

SUDC
606930

Sudden Cardiac Death Pathology Consultation

Specimen Requirements: 1. The heart specimen is required for testing. 2. Send whole blood in addition to heart specimen, if available. Specimen Type: Heart specimen Supplies: -Pathology Packaging Kit (T554) -Ambient Shipping Box, 5 lb (T970) Specimen Volume: Entire specimen Collection Instructions: 1. Fix entire specimen in formalin for a minimum of 24 hours. 2. Following fixation, lightly wrap specimen in formalin-soaked paper towel, place in a leak-proof sealable bag with a small amount of formalin, seal, and ship ambient in a sturdy shipping container. Additional Information: Paraffin block may be accepted. Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen.

Specimen Minimum Volume: Heart specimen: See Specimen Required; Blood: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
SUDC Study Specimen	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 88037

GLYCS
606972

Glycine Receptor Alpha1 IgG, Cell Binding Assay, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 0431U

GLYCC
606973

Glycine Receptor Alpha1 IgG, Cell Binding Assay, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 2 mL

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 0431U

AIAES
606974

Axonal Neuropathy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, collect specimen before starting immunosuppressant medication or intravenous immunoglobulin treatment. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 10; 84182 AGNBS (if appropriate); 86256 AGNTS (if appropriate); 86256 APHTS (if appropriate); 84182 AMIBS (if appropriate); 84182 AN1BS (if appropriate); 86256 AN1TS (if appropriate); 84182 AN2BS (if appropriate); 86256 AN3TS (if appropriate); 86255 APBCS (if appropriate); 86256 APBTS (if appropriate); 86256 CRMTS (if appropriate); 84182 CRMWS (if appropriate); 86256 IG5TS (if appropriate); 84182 MP1BS (if appropriate); 86256 PC2TS (if appropriate);

HEXP
606984

Iohexol, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Green top (heparin) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Heparin	Refrigerated (preferred)	7 days
	Frozen	35 days
	Ambient	7 days

CPT Code Information: 82542

HEXU
606985

Iohexol, Timed Collection, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic vial Specimen Volume: 5 mL Collection Instructions: Collect a timed urine specimen. Timing may be variable and patient dependent.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	35 days
	Ambient	7 days

CPT Code Information: 82542

KRT5
606999

Keratin 5 (KRT5) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

SSCTU
607001

S-Sulfocysteine Panel, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative needed.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen	90 days

CPT Code Information: 82542

MAGES
607034

Myelin-Associated Glycoprotein Autoantibodies, IgM, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 83520

THSD7
607079

Thrombospondin Type-1 Domain-Containing 7A Antibodies, Serum

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container: Plastic vial Specimen Volume: 1 mL Collection Information: Centrifuge and aliquot serum into plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	8 hours

CPT Code Information: 86255

IFG23
607216

Intact Fibroblast Growth Factor 23, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 83520

URAU
607234

Urea, 24 Hour, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic, urine tube Specimen Volume: 4 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Mix well before taking aliquot. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84540

ADEVL
607273

Alzheimer Disease Evaluation, Spinal Fluid

Specimen Requirements: Supplies: Alzheimer's Disease Evaluation (ADEVL) Collection Kit (T836) CSF AD Biomarker Tubes (T833; also included in T836) Container/Tube: Preferred: Sarstedt CSF False Bottom Tube 63.614.625 (2.5 mL) Acceptable: Sarstedt 72.703.600 (1.5 mL) or Sarstedt 72.694.600 (2 mL) Specimen Volume: 1.5 to 2.5 mL Collection Instructions: 1. Perform lumbar puncture and discard the first 1 to 2 mL of cerebrospinal fluid (CSF). 2. Collect CSF directly into one of the listed collection tubes until the tube is at least 50% full.* 3. Send CSF specimen in original collection tube. Do not aliquot. Note: Polystyrene collection tubes are not acceptable. Exposure of CSF to polystyrene tubes may result in falsely low Abeta42 concentrations. For more information see Cautions. *The Alzheimer's Association

consensus protocol for handling of CSF for clinical measurements of Abeta42 and tau recommends using the drip method for CSF collection and directly collecting into a low-bind polypropylene tube. Although some clinicians prefer the syringe pull method due to speed of collection, the drip method reduces the risk of Abeta42 binding to the plastic of any syringe used. 4. Collection instructions can also be found on Spinal Fluid Specimen Collection Instructions for Alzheimer Disease Evaluation (T967).

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
CSF	Refrigerated (preferred)	14 days	BlueTop SARSTEDT
	Frozen	60 days	BlueTop SARSTEDT
	Ambient	12 hours	BlueTop SARSTEDT

CPT Code Information: AB42P-82234; PTAUP-84393; TTAUP-84394;

CLDN4
607334

Claudin-4 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

BRCMG
607346

Brucella Antibody Screen, IgM and IgG, ELISA, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a sterile, plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86622 x 2-Brucella antibody, IgG and IgM; 86622-Brucella total antibody, agglutination (if appropriate);

TBSP
607364

Mycobacterium tuberculosis Complex Species Identification, PCR, Varies

Specimen Requirements: Specimen Type: Mycobacterium tuberculosis complex isolate growing in pure culture Supplies: Infectious Container, Large (T146) Container/Tube: Growth on solid slant media, eg, Middlebrook 7H10, 7H11 and Lowenstein Jensen; growth in broth medium, eg, Mycobacteria Growth Indicator Tube, 7H9 broth BACT/ALERT MP or VersaTREK Specimen Volume: Isolate with visible growth on solid media; if broth is sent, 3 mL or more of broth culture Collection Instructions: 1. Bacterial organism must be submitted in pure culture, actively growing. Do not submit mixed cultures. 2. Place specimen in a large infectious container and label as an etiologic agent/infectious substance. Additional Information: If subculture to Middlebrook agar medium is needed to ensure purity, turnaround time for results may be delayed.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87150

PLA2M
607366

Phospholipase A2 Receptor, Monitoring, Enzyme-Linked Immunosorbent Assay, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	8 hours

CPT Code Information: 83520

PLA2I
607367

Phospholipase A2 Receptor, Immunofluorescence, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	8 hours

CPT Code Information: 86255

BA48F
607368

Bile Acids, Bowel Dysfunction, 48 Hour, Feces

Specimen Requirements:

Specimen Minimum Volume: 5 g

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen	30 days

CPT Code Information: 82542

PVLE
607409

Paraneoplastic Vision Loss Evaluation, Serum

Specimen Requirements: Patient Preparation: 1. For optimal antibody detection, specimen collection is recommended prior to initiation of immunosuppressant medication. 2. This test should not be requested for patients who have recently received radioisotopes, therapeutically or diagnostically, because of potential assay interference. The specific waiting period before specimen collection will depend on the isotope administered, the dose given, and the clearance rate in the individual patient. Specimens will be screened for radioactivity prior to analysis. Radioactive specimens received in the laboratory will be held 1 week and assayed if sufficiently decayed or canceled if radioactivity remains. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 4 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x1; 84182 x1; 84182 CRMWS (if appropriate); 86256 CRMTS (if appropriate);

HMGCR
607414

3-Hydroxy-3-Methylglutaryl Coenzyme-A (HMG-CoA) Reductase, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 82397

8INHE
607424

Factor VIII Inhibitor Evaluation, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 2 Plastic vials, each containing 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-Factor VIII Tech Interp; 85240-Factor VIII activity assay; 85335-Bethesda titer (if appropriate); 85335-Factor VIII inhibitor screen (if appropriate); 85390-Factor VIII Professional Interp (if appropriate);

9INHE
607425

Factor IX Inhibitor Evaluation, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 2 Plastic vials, each containing 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390; 85250; 85335 (if appropriate); 85335 (if appropriate); 85390 (if appropriate);

5INHE
607426

Factor V Inhibitor Evaluation, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 2 Plastic vials, each containing 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390; 85220; 85335 (if appropriate); 85335 (if appropriate); 85390 (if appropriate);

2INHE
607427

Factor II Inhibitor Evaluation, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 2 Plastic vials, each containing 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390; 85210; 85335 (if appropriate); 85335 (if appropriate); 85390 (if appropriate);

7INHE
607428

Factor VII Inhibitor Evaluation, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 2 Plastic vials, each containing 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390; 85230; 85335 (if appropriate); 85335 (if appropriate); 85390 (if appropriate);

10INE
607429

Factor X Inhibitor Evaluation, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 2 Plastic vials, each containing 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390; 85260; 85335 (if appropriate); 85335 (if appropriate); 85390 (if appropriate);

11INE
607430

Factor XI Inhibitor Evaluation, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 2 Plastic vials, each containing 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390; 85270; 85335 (if appropriate); 85335 (if appropriate); 85390 (if appropriate);

5BETH
607433

Factor V Bethesda Units, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -ALUPP / Lupus Anticoagulant Profile, Plasma -ALBLD / Bleeding Diathesis Profile, Limited, Plasma -APROL / Prolonged Clot Time Profile, Plasma -5INHE / Factor V Inhibitor Evaluation, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85335

GBETH
607434

General Factor Bethesda Units, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -ALBLD / Bleeding Diathesis Profile, Limited, Plasma -APROL / Prolonged Clot Time Profile, Plasma -2INHE / Factor II Inhibitor Evaluation, Plasma -7INHE / Factor VII Inhibitor Evaluation, Plasma -10INE / Factor X Inhibitor Evaluation, Plasma -11INE / Factor XI Inhibitor Evaluation, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85335

8INHT
607435

Factor VIII Inhibitor Profile, Technical Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see 8INHE / Factor VIII Inhibitor Evaluation, Plasma.

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390

9INHT
607436

Factor IX Inhibitor Profile Technical Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see 9INHE / Factor IX Inhibitor Evaluation, Plasma.

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390

5INHT
607437

Factor V Inhibitor Profile, Technical Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see 5INHE / Factor V Inhibitor Evaluation, Plasma.

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390

2INHT
607438

Factor II Inhibitor Profile, Technical Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see 2INHE / Factor II Inhibitor Evaluation, Plasma.

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390

7INHT
607439

Factor VII Inhibitor Profile, Technical Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see 7INHE / Factor VII Inhibitor Evaluation, Plasma.

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390

10INT
607440

Factor X Inhibitor Profile, Technical Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see 10INE / Factor X Inhibitor Evaluation, Plasma.

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390

11INT
607441

Factor XI Inhibitor Profile, Technical Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see 11INE / Factor XI Inhibitor Evaluation, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390

8AINH
607442

Factor VIII Inhibitor Profile, Professional Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26

9AINH
607443

Factor IX Inhibitor Profile, Professional Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26

5AINH
607444

Factor V Inhibitor Profile, Professional Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26

2AINH
607445

Factor II Inhibitor Profile, Professional Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26

7AINH
607446

Factor VII Inhibitor Profile, Professional Interpretation (Non-

Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26

10AIH
607447

Factor X Inhibitor Profile, Professional Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26

11AIH
607448

Factor XI Inhibitor Profile, Professional Interpretation (Non-Orderable)

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85390-26

AK1
607455

Adenylate Kinase Enzyme Activity, Blood

Specimen Requirements: Collection Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Lavender top (EDTA) or yellow top (ACD solution A) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 82657

PFK1
607456

Phosphofructokinase Enzyme Activity, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Lavender top (EDTA) or yellow top (ACD solution A) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	11 days

CPT Code Information: 82657

PGK1
607457

Phosphoglycerate Kinase Enzyme Activity, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Lavender top (EDTA) or yellow top (ACD solution A) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 82657

TPI1
607458

Triosephosphate Isomerase Enzyme Activity, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 82657

PK1
607459

Pyruvate Kinase Enzyme Activity, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 84220

G6PD1
607460

Glucose 6-Phosphate Dehydrogenase Enzyme Activity, Blood

Specimen Requirements: Collection Container/Tube: Preferred: Yellow top (ACD solution B)

Acceptable: Lavender top (EDTA) or yellow top (ACD solution A) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 82955

HK1
607461

Hexokinase Enzyme Activity, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 82657

MURA
607462

Lysozyme (Muramidase), Plasma

Specimen Requirements: Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Plasma Collection Instructions: 1. Within 2 hours of collection, centrifuge and aliquot plasma into a plastic vial. 2. Freeze immediately.

Specimen Minimum Volume: Plasma: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	21 days

CPT Code Information: 85549

GPI1
607463

Glucose Phosphate Isomerase Enzyme Activity, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 84087

EEEV1
607493

Red Blood Cell (RBC) Enzyme Evaluation, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) Specimen Volume: 12 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	11 days

CPT Code Information: 82955-G6PD Enzyme Activity; 84087-Glucose Phosphate Isomerase; 84220-Pyruvate Kinase Enzyme Activity; 82657-Hexokinase; 82657-Adenylate Kinase; 82657-Phosphofructokinase; 82657-Phosphoglycerate Kinase; 82657-Triosephosphate Isomerase; 82978-Glutathione ; 83915-Pyrimidine 5' Nucleotidase;

HAEV1
607494

Hemolytic Anemia Evaluation, Blood

Specimen Requirements: The following specimens are required for testing: 2 Patient whole blood EDTA specimens 2 Patient whole blood ACD specimens 1 Shipping control whole blood EDTA specimen (collected from a healthy individual) 2 Well-made peripheral blood smears (Wright stained or fixed in absolute methanol) For complete instructions, refer to the Specimen Collection and Labeling Instructions for Osmotic Fragility Testing of Erythrocytes. Shipping Control Specimen: Specimen Type: Whole blood (non-patient) Container/Tube: Lavender top (EDTA) Specimen Volume: 4 mL Collection Instructions: 1. Collect a shipping control specimen from a healthy person unrelated to the patient at the same time (or within 4 hours) as the patient specimen. Note: The shipping control specimen can be collected from a phlebotomist, volunteer or another heathy patient. 2. Clearly handwrite "CONTROL" on the outermost label of the tube. 3. Refrigerate (or place on cold gel pack/small amount of wet ice) specimen immediately after collection. 4. Send shipping control in the original tube. Do not aliquot. 5. Keep the shipping control and the patient specimens together, either rubber banded or in a bag. Additional Information: 1. The shipping control and patient specimens must be handled identically from the time of collection through receipt in the testing laboratory. 2. If the shipping control is not sent with the patient specimen, test cancellation is likely. 3. The shipping control specimen evaluates whether the patient result has been compromised by handling conditions such as temperature, motion, or other transportation interferences, as temperature and handling extremes can adversely impact the integrity of the specimen. Patient Specimen: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) and yellow top (ACD) Specimen Volume: Two 4-mL EDTA tubes AND two 6-mL ACD tubes Collection Instructions: 1. Collect and label patient specimens. 2. Refrigerate (or place on cold gel pack/small amount of wet ice) specimen immediately after collection. 3. Send whole blood specimens in the original tubes. Do not aliquot. 4. Keep the shipping control and the patient specimens together, either rubber banded or in a bag. Additional Information: The shipping control and patient specimens must be handled identically from the time of collection through receipt in the testing laboratory. Patient Specimen: Specimen Type: Slides Container/Tube: Blood smears Specimen Volume: 2 Well-made peripheral blood smears Collection Instructions: 1. Prepare 2 peripheral blood smears from the EDTA tube collected from the patient. 2. Either stain the smear with Wright stain or fix the smear with absolute methanol prior to shipping. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: EDTA whole blood patient/Shipping control: 3 mL; ACD whole blood patient: 5 mL; Slides: see Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Control	Refrigerated	72 hours	PURPLE OR PINK TOP/EDTA
Whole Blood ACD-B	Refrigerated	72 hours	
Whole Blood EDTA	Refrigerated	72 hours	
Whole Blood Slide	Refrigerated	CARTRIDGE	

CPT Code Information: 83020-26-Hemolytic Anemia Interpretation; 82657-Hexokinase, B; 82955-G6PD Enzyme Activity, B; 83020-Hemoglobin electrophoresis; 83021-High-Performance Liquid Chromatography (HPLC); 83068-Hemoglobin Stability; 84087-Glucose phosphate isomerase, B;

84220-Pyruvate Kinase Enzyme Activity, B; 82657-Adenylate Kinase, B; 82657-Phosphofructokinase, B; 82657-Phosphoglycerate Kinase, B; 82657-Trisephosphate Isomerase, B; 85060-Morphology review; 85557-Osmotic fragility; 88184-Band 3 Fluorescence Staining, RBC; 83915-Pyrimidine 5' Nucleotidase; 82978-Glutathione, B; 85547 (if appropriate); 83789 (if appropriate); 82664 (if appropriate); 88184 (if appropriate);

MEV1
607495

Methemoglobinemia Evaluation, Blood

Specimen Requirements: The following specimens are required for testing: Whole blood ACD-B specimen 2 Whole blood EDTA specimens Container/Tube: Lavender top (EDTA) and yellow top (ACD solution B) Specimen Volume: EDTA: Two 4 mL tubes ACD: One 6 mL tube Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: EDTA blood: 3 mL; ACD blood: 2.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	72 hours
Whole Blood EDTA	Refrigerated	72 hours

CPT Code Information: 83020-26-Hemoglobinopathy Interpretation; 83020-Hb Variant, A2 and F Quantitation; 83021-HPLC Hb Variant; 82657-Methemoglobin reductase; 83050-Methemoglobin, quantitative; 83060-Sulfhemoglobin, quantitative; 82664 (if appropriate); 83068 (if appropriate); 83789 (if appropriate); 88184 (if appropriate);

TYRBS
607550

Tyrosinemia Follow Up Panel, Blood Spot

Specimen Requirements: Submit only 1 of the following specimen types: Preferred: Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 Paper, PerkinElmer 226 filter paper, Munktell filter paper, or blood collected in tubes containing EDTA and dried on filter paper Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. At least 2 spots should be complete (ie, unpunched). 3. Let blood dry on filter paper at room temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Specimen Stability Information: Ambient (preferred) 7 days/Refrigerated 14 days/Frozen 90 days Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Acceptable: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Refrigerate 6 days

Specimen Minimum Volume: Blood spots: 1; Whole blood: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Varies	

CPT Code Information: 84510; 84030; 82542; 80299; 82131; 82542 only (if appropriate for government payers);

APOA1
607591

Apolipoprotein A1, Serum

Specimen Requirements: Preferred: Serum gel Acceptable: Red top Specimen Volume: 0.5 mL Collection Instructions: 1. Centrifuge and aliquot within 2 hours of collection. 2. Red-top tubes should be centrifuged and aliquoted within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	8 days
	Frozen	60 days
	Ambient	24 hours

CPT Code Information: 82172

APOAB
607593

Apolipoprotein A1 and B, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial. 2. Send refrigerate.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	8 days
	Frozen	60 days
	Ambient	24 hours

CPT Code Information: 82172 x 2

HPFRP 607594 Helicobacter pylori with Clarithromycin Resistance Prediction, Molecular Detection, PCR, Feces

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Helicobacter pylori DNA is unlikely. Patient Preparation: 1. For 4 weeks prior to testing, patient should not take antibiotics. 2. For 2 weeks prior to testing, patient should not take proton pump inhibitors or bismuth compounds. Supplies: Culture and Sensitivity Stool Transport Vial (T058) Specimen Type: Preserved feces Submission Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of nonnutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S) Specimen Volume: 5 mL Collection Instructions: 1. Collect fresh fecal specimen and submit 1 gram or 5 mL in container with transport medium. 2. Place feces in preservative within 2 hours of collection. 3. Place vial in a sealed plastic bag and send ambient or refrigerated. Specimens sent frozen will be rejected.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 87513

HPRP 607595 Helicobacter pylori with Clarithromycin Resistance Prediction, Molecular Detection, PCR, Tissue

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Helicobacter pylori DNA is unlikely. Submit only 1 of the following specimens: Specimen Type: Fresh tissue or biopsy Sources: Stomach (or duodenum) Container/Tube: Sterile container Specimen Volume: Entire collection or 5 mm (3) approximate size of a pencil eraser Collection Instructions: 1. Collect fresh tissue specimen. 2. Submit tissue in a sterile container (without adding anything). 3. Refrigerate or freeze the specimen. Specimen Stability Information: Refrigerated (preferred) 7 days/Frozen 7 days Preferred: Supplies: Tissue Block Container (T553) Specimen Type: Formalin-fixed, paraffin-embedded (FFPE) tissue block Sources: Stomach (or duodenum) Container/Tube: Tissue block Collection Instructions: Submit FFPE tissue block to be cut and returned. Specimen Stability Information: Ambient (preferred)/Refrigerated Acceptable: Specimen Type: Formalin-fixed, paraffin-embedded (FFPE) tissue scroll Sources: Stomach (or duodenum) Container/Tube: Sterile container for each individual cut section (scroll) Collection Instructions: Perform microtomy and prepare five separate 10-micron sections. Each section (scroll) must be placed in a separate sterile container for submission. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: Fresh tissue or biopsy: 5 mm(3) Formalin-fixed paraffin-embedded tissue block: One block Formalin-fixed paraffin-embedded tissue scroll: Two 10-micron sections

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87513

HPCRP 607596 Helicobacter pylori with Clarithromycin Resistance Prediction, Molecular Detection, PCR, Varies

Specimen Requirements: Supplies: Infectious Container, Large (T146) Container/Tube: Agar slant or other appropriate media Specimen Volume: Isolate Collection Instructions: 1. Perform isolation of Helicobacter pylori in culture. 2. H pylori isolate must be submitted in pure culture. Do not submit mixed cultures.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 87513

HPCR1 607597 Helicobacter pylori with Clarithromycin Resistance Prediction, Molecular Detection, PCR (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87513

CSP53
607599

TP53 Gene Somatic Mutation Pre-Analysis Cell Sorting, Varies (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see P53CA / Hematologic Neoplasms, TP53 Somatic Mutation, DNA Sequencing Exons 4-9, Varies. Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	10 days
	Refrigerated	10 days

CPT Code Information: 88184-Flow cytometry, first cell surface, cytoplasmic or nuclear marker; 88185 x 4-Each additional marker;

SATB2
607600

SATB2 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CIB
607602

Cutaneous Direct Immunofluorescence Assay, Varies

Specimen Requirements: Each biopsy requires separate specimen vials. If 2 or more biopsies are received in 1 specimen vial, expect testing delay. Note: Multiple biopsies can be ordered together. Tests performed on each site will be billed accordingly. Transport Medium Method Specimen Type: Tissue Supplies: Michel's Transport Media for Immunofluorescent Testing on Tissue (T321) Sources: Skin or 1 of the following mucosae: oral (oropharyngeal), nasal, genital, esophageal, conjunctival, laryngeal, or epiglottis Container/Tube: Screw-capped container or vial containing transport medium (Michel's, also called Zeus media) Specimen Volume: 2- to 8-mm punch specimen, intact or bisected; excisional biopsy specimen intact or bisected Collection Instructions: 1. Collect biopsy of skin or mucosa avoiding old lesions (including facial), ulcers, erosions, or bullae. Refer to Recommended Biopsy Site Selection Based on Disease State below. 2. Immediately place specimen into a labeled vial of transport medium and seal tightly. Acceptable Snap-Frozen Method Specimen Type: Tissue Sources: Skin or 1 of the following mucosae: oral (oropharyngeal), nasal, genital, esophageal, conjunctival, laryngeal, or epiglottis Container/Tube: Plastic vial Specimen Volume: 2- to 8-mm punch specimen, intact or bisected; excisional biopsy specimen, intact or bisected Collection Instructions: 1. Collect biopsy of skin or mucosa avoiding old lesions (including facial), ulcers, erosions, or bullae. Refer to Recommended Biopsy Site Selection Based on Disease State below. 2. Immediately place specimen into liquid nitrogen and allow to freeze thoroughly (do not allow specimen to desiccate). If liquid nitrogen is not available, specimen may be frozen by placing it on a small square of aluminum foil on a block of dry ice. Liquid nitrogen is preferred. 3. Immediately wrap specimen carefully in aluminum foil. At no time should the specimen be allowed to thaw. 4. Place the wrapped specimen into the prelabeled plastic vial and seal tightly. Ship frozen. Recommended Biopsy Site Selection Based on Disease State 1. Pemphigus and pemphigoid groups (including linear IgA bullous dermatosis and chronic bullous disease of childhood): Biopsy erythematous perilesional skin or mucosa. Avoid erosions, ulcers, and bullae while obtaining tissue adjacent to active lesions. Label as perilesional skin. 2. Dermatitis herpetiformis: Biopsy normal-appearing skin, 0.5-1 cm away from lesion. Label as perilesional skin. 3. Lupus erythematosus: Involved areas of skin such as erythematous or active borders are preferred biopsy sites to confirm the diagnosis of lupus erythematosus, either discoid or systemic. Label as involved skin. Avoid ulcers, old lesions, and facial lesions, if possible. Uninvolved, nonexposed skin is the preferred site to detect a lupus band as may be found in systemic lupus erythematosus. Should unexposed skin be desired, buttock or medial thigh is suggested. Label as uninvolved, nonexposed skin. 4. Mixed connective tissue disease: Biopsy as for lupus erythematosus except when sclerodermoid features are present. For sclerodermoid features, biopsy inflamed area. Label as involved or uninvolved, exposed or nonexposed skin. 5. Vasculitis and urticaria: The erythematous or active border of a new lesion is preferred. Avoid old lesions and ulcers. Label as involved skin. If appropriate, skin lesion is not present, diagnosis may sometimes be made from uninvolved skin. 6. Porphyria: Biopsy involved skin. Avoid old lesions and ulcers. Label as involved skin. 7. Lichen planus and lichenoid reactions: Biopsy involved skin. Avoid old lesions and ulcers. Label as involved skin.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	30 days
	Frozen	120 days
	Refrigerated	30 days

CPT Code Information: Per biopsy:; 88346; 88350 x 5;

CSPCF 607625 Plasma Cell Proliferative Disorder, Pre-Analysis Cell Sorting, Bone Marrow (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see PCPDS / Plasma Cell Proliferative Disorder, High Risk with Reflex Probes, Diagnostic FISH Evaluation, Bone Marrow Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (heparin) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow 2. Send bone marrow specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 88184-Flow Cytometry; first cell surface, cytoplasmic or nuclear marker; 88185 x 5-Flow Cytometry, additional cell surface, cytoplasmic or nuclear marker (each);

CSMRT 607626 mSMART Plasma Cell Proliferative Disorder, Pre-Analysis Cell Sorting, Bone Marrow (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see one of the following: MSMRT / Mayo Algorithmic Approach for Stratification of Myeloma and Risk-Adapted Therapy Report, Bone Marrow MSMRD / Myeloma Stratification and Risk-Adapted Therapy with Reflex to Minimal Residual Disease, Bone Marrow Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (heparin) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 88184-Flow Cytometry; first cell surface, cytoplasmic or nuclear marker; 88185 x 5-Flow Cytometry, additional cell surface, cytoplasmic or nuclear marker (each);

SPAS
607691

Arsenic Speciation, Random, Urine

Specimen Requirements: Patient Preparation: 1. For 48 hours before collection, patient should not eat seafood. 2. High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Urine Tubes, 10 mL (T068) -Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic vial or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 82175

UREDF
607696

Reducing Substance, Feces

Specimen Requirements: Supplies: Stool container, Small (Random), 4 oz Random (T288) Container/Tube: Fecal container Specimen Volume: 3 g Collection Instructions: 1. Collect a loose, unpreserved, random fecal specimen. 2. Freeze immediately. Additional Information: If additional tests are ordered, aliquot and separate sample prior to freezing to allow 1 container per test.

Specimen Minimum Volume: 2 g

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen	7 days

CPT Code Information: 84376

ADMA
607697

Asymmetric Dimethylarginine, Plasma

Specimen Requirements: Patient Preparation: Fasting: 12 hours, required Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge and aliquot 1 mL of plasma into a plastic vial. 2. Send specimen frozen.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	90 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 82542

F2ISO
607698

F2-Isoprostanes, Random, Urine

Specimen Requirements: Patient Preparation: Patient should not take nonsteroidal anti-inflammatory drugs within the 72 hours or aspirin within the 2 weeks prior to specimen collection. Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic urine tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 82542

7AC4
607699

7AC4, Bile Acid Synthesis, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Refrigerated	72 hours
	Ambient	24 hours

CPT Code Information: 82542

FOBT
607700

Fecal Occult Blood, Colorectal Cancer Screen, Qualitative, Immunochemical, Feces

Specimen Requirements: Supplies: Fecal Occult Blood Test Kit (T1009) Container/Tube: Fecal Occult Blood Test Kit Specimen Volume: Specimen must fill the grooved portion of the sample probe Collection Instructions: 1. Collect a random stool specimen. 2. See Fecal Occult Blood Test Kit package insert for instructions. 3. Specimen must be collected in specific sample vial within 4 hours of defecation.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Fecal	Refrigerated (preferred)	30 days	FOBT
	Ambient	15 days	FOBT

CPT Code Information: 82274; G0328 (if appropriate for government payers);

FATF
607701

Fat, Feces

Specimen Requirements: Patient Preparation: 1. For 3 days prior to and during the collection period: a. Patient should be on a fat-controlled diet (100-150 g fat per day). b. No laxatives (particularly mineral oil and castor oil). c. No synthetic fat substitutes (eg, Olestra) or fat-blocking nutritional

supplements. 2. The use of diaper rash ointments will falsely elevate test results. Discontinue use during collection period. 3. Barium interferes with test procedure; a waiting period of 48 hours before stool collection analysis is recommended. Supplies: Stool Containers - 24, 48, 72 Hour Kit (T291) Container/Tube: Stool container complies with shipping requirements, do not use other containers. Specimen Volume: Preferred: Entire 48-hour or 72-hour collection Acceptable: Entire 24-hour or a minimum of 5 g from a random collection Collection Instructions: 1. All containers must be sent together. 2. The entire collection must contain at least 5 g of feces. 3. For a random collection, a minimum of 5 g (do not send entire collection) is required. 4. The number of containers sent should be indicated on the labels (1 of 4, for example). Additional Information: 1. Patient can store sample at refrigerate temperature during collection period. 2. A separate order and collection should take place if stool, chloride, magnesium, osmolality, phosphorus, pH, or any microbiology testing is desired.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen (preferred)	180 days
	Refrigerated	180 days

CPT Code Information: 82710

NITF
607704

Nitrogen, Total, Feces

Specimen Requirements: Patient Preparation: Laxatives and enemas should not be used during collection as barium and boric acid interfere with test procedure. Supplies: Stool Containers - 24, 48, 72 Hour Kit (T291) Container/Tube: Stool container; complies with shipping requirements, do not use other containers. Specimen Volume: Entire collection (24, 48, 72, or 96 hours) Collection Instructions: 1. All containers must be sent together. 2. Entire collection must contain at least 5 g of feces. 3. The number of containers sent should be indicated on the labels (ie, 1 of 4) Specimen Stability Information: Frozen 3 years Additional Information: Patient can store sample at refrigerate temperature during collection period.

Specimen Type	Temperature	Time
Fecal	Frozen (preferred)	
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 84999

NITU
607705

Nitrogen, Total, 24 Hour, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 10 mL Collection Instructions: 1. Collect urine for 24 hours. 2. No

preservative. Refrigerated is the preferred preservation method. Specimen Stability Information: Frozen 3 years Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	

CPT Code Information: 84999

HQ
607706

HemoQuant, Feces

Specimen Requirements: Patient Preparation: Patient should refrain from ingesting red meat and aspirin-containing products (eg, Excedrin, Aspirin) for 3 days prior to specimen collection. Collection Container/Tube: Hemoquant Specimen Collection (T134) Submission Container/Tube: Screw-capped tube Specimen Volume: 1 g Collection Instructions: Collect random specimen from a single defecation.

Specimen Minimum Volume: 1 g

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	

CPT Code Information: 84126

ALDEF
607710

Alpha Defensin, Lateral Flow Assay, Synovial Fluid

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red-top tube without preservative or clot activators Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Synovial Fluid	Refrigerated (preferred)	7 days
	Ambient	7 days

CPT Code Information: 83518

TFNAB
607714

Thyroglobulin, Tumor Marker, Fine-Needle Aspiration Biopsy Needle Wash

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Collection Container/Tube: Plain, plastic, screw-top tube Specimen Volume: 1 to 1.5 mL Collection Instructions: 1. Needle wash specimens for analysis should be collected in conjunction with cytology specimens. 2. Have saline available prior to start of procedure. Saline is the only acceptable solution for needle washings. 3. After each fine-needle aspiration biopsy (FNAB) has been collected and the material in the needle has been expelled onto a slide for cytologic analysis, attach the used FNAB needle to an empty syringe. 4. Withdraw between 0.10 mL and 0.25 mL of saline up through the needle until the saline starts to fill the hub of the needle or end of the syringe. 5. Expel this fluid back through the needle into a separate plastic screw-top tube. This is the needle washing used for analysis. 6. Repeat steps 2 through 4 for each needle pass of the same biopsied site and empty into the same tube, accumulating a total of 0.5 mL to 1.5 mL of fluid to send to the laboratory. (If more than 1 site is biopsied, see Additional Information) 7. Inspect specimen for visible blood or tissue contamination: a. If bloody, centrifuge specimen and transfer supernatant to a new plastic aliquot tube (5-mL standard tube) prior to sending to laboratory. The supernatant, not the cellular material, is used for analysis. b. If specimen is clear, centrifugation is not necessary. Additional Information: 1. If more than 1 site is biopsied, each washing material should be submitted on a separate tube and under a different order number. 2. A minimum of 0.5 mL is required for testing; however, the total collection volume should not exceed 1.5 mL. Specimen volumes outside these parameters may be rejected. 3. Do not send a saline control. This test has been validated to rule-out saline matrix effect.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fine Needle Wash	Frozen (preferred)	90 days
	Refrigerated	14 days
	Ambient	7 days

CPT Code Information: 84432

CRCRU
607758

Chromium/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic vial or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82495; 82570;

COBRU
607760

Cobalt/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 83018 ; 82570;

COUO
607762

Cobalt Occupational Exposure, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container with no metal cap or glued insert Submission Container/Tube: Plastic 10 mL urine tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. At the end of the work week, collect a random urine specimen at the end of the employee's work shift. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 83018 ; 82570 ;

21OH
607788

21-Hydroxylase Antibodies, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 83516

PAX2
607795

PAX2 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed,

paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

ESBLS
607828

Extended-Spectrum Beta-Lactamase-Producing Gram-Negative Bacteria Surveillance Culture, Feces

Specimen Requirements: Patient Preparation: Do not use barium or bismuth before specimen collection. Supplies: Culture and Sensitivity Stool Transport Vial (T058) Specimen Type: Preserved feces Container/Tube: Cary-Blair or modified Cary-Blair transport system is required. Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of nonnutritive transport medium containing phenol red as a pH indicator. Submit sample in original Cary Blair medium container (not an aliquot of Cary Blair medium). Specimen Volume: Representative portion of feces; 1 gram or 5 mL Collection Instructions: 1. Collect fresh fecal specimen and place 1 gram or 5 mL in container with transport medium. 2. Place feces in preservative within 2 hours of collection. 3. Place vial in a sealed plastic bag.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 87081-ESBL GNB surveillance culture; 87077-Ident by MALDI-TOF mass spec (if appropriate); 87184-ESBL SUS test charge (if appropriate);

AHPV
607829

Anal Pap Human Papillomavirus (HPV) with Genotyping, High-Risk Types, PCR, Varies

Specimen Requirements: Submit one of the following specimens: Preferred Specimen Type: Anus

or rectum Supplies: ThinPrep Media with Spatula and Brush Kit (T434) Collection Container/Tube: Brush Submission Container/Tube: ThinPrep Specimen Volume: A minimum of 20 mL or entire collection Collection Instructions: 1. Visualize the anal opening by retracting the buttocks. 2. Insert brush past internal anal sphincter until it abuts the distal rectal wall (4-5cm). 3. Rotate the brush 360 degrees and maintain lateral pressure on brush against the walls of the anus. The brush should bow slightly due to the pressure. 4. While rotating, slowly withdraw the brush. 5. Rotate at least 10 times while withdrawing the brush. This should take 20 to 30 seconds. 6. Immediately place brush in the ThinPrep solution and swish at least 20 to 30 seconds. 7. Dispose of the brush. 8. Tighten the cap so that the torque line on the cap passes the torque line on the vial. 9. Bag ThinPrep specimens individually as they tend to leak during transport. 10. Place labels on the vial and on the biohazard bag. Acceptable Specimen Type: Anus or rectum Supplies: PreservCyt Vial (T536) Collection Container/Tube: Dacron/polyester swab Submission Container/Tube: PreservCyt solution vial Specimen Volume: A minimum of 20 mL or entire collection Collection Instructions: 1. Visualize the anal opening by retracting the buttocks. 2. Insert Dacron or polyester swab past internal anal sphincter until it abuts the distal rectal wall (4-5cm). 3. Rotate the swab 360 degrees and maintain lateral pressure on swab against the walls of the anus. The swab should bow slightly due to the pressure. 4. While rotating, slowly withdraw the swab. 5. Rotate at least 10 times while withdrawing the swab. This should take 20 to 30 seconds. 6. Immediately place swab in the ThinPrep solution. Swish at least 20 to 30 seconds in the ThinPrep solution. 7. Dispose of the swab. 8. Tighten the cap so that the torque line on the cap passes the torque line on the vial. 9. Bag ThinPrep specimens individually as they tend to leak during transport. 10. Place labels on the vial and on the biohazard bag.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	21 days

CPT Code Information: 87626

MSP3
607837

Multiple Sclerosis (MS) Cascade, Serum and Spinal Fluid

Specimen Requirements: Both serum and spinal fluid are required. Spinal fluid must be obtained within 1 week of serum collection. Specimen Type: Spinal fluid (CSF) Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: 1. Submit CSF from collection vial number 4 (preferred); vial number 1, 3, 2 are also acceptable (in this order). 2. Label specimen as spinal fluid. Specimen Type: Serum Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. 2. Label specimen as serum.

Specimen Minimum Volume: Serum, Spinal fluid: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	14 days
	Refrigerated	72 hours
	Ambient	24 hours
Serum	Frozen (preferred)	14 days
	Ambient	14 days
	Refrigerated	14 days

CPT Code Information: 83521; 83916 x2 (if appropriate);

XSRM
607838

Additional Sample for Reflex Oligoclonal Banding, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see MSP3 / Multiple Sclerosis (MS) Cascade, Serum and Spinal Fluid. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge and aliquot serum in a plastic vial. 2. Label specimen as serum.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Ambient	14 days
	Refrigerated	14 days

KCSFP
607839

Immunoglobulin Kappa Free Light Chain, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see MSP3 / Multiple Sclerosis (MS) Cascade, Serum and Spinal Fluid. Specimen Type: Spinal fluid (CSF) Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: 1. Submit CSF from collection vial number 4 (preferred); vial number 1, 3, and 2 are also acceptable (in this order). 2. Label specimen as CSF.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	28 days
	Refrigerated	72 hours
	Ambient	24 hours

CPT Code Information: 83521

CAURS
607883

Candida auris Surveillance, Molecular Detection, PCR, Varies

Specimen Requirements: Supplies: E-swab (T853) Source: Axilla and groin composite Container/Tube: ESwabs in liquid Amies medium Specimen Volume: Swab Collection Instructions: 1. Swab transport containers without charcoal must contain a pledget saturated with either Stuart's or Amies liquid media. 2. Swab used for this test cannot be shared with fungal culture. When fungal culture is ordered with this test, send separate swabs for each.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Swab	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87481

CTSK
607887

Cathepsin K Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TPIT
607889

T-PIT Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CD303
607891

CD303 (BDCA-2) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CDGGP
608010

Congenital Disorders of Glycosylation Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 14 days Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin (Eagle's minimum essential medium with 1% penicillin and streptomycin). Specimen Volume: 4-mm punch Specimen Stability Information: Refrigerated (preferred)/Ambient Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblast Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred)/Refrigerated (<24 hours) Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 (formerly Ahlstrom 226) filter paper, or blood spot collection card Specimen Volume: 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect Dried Blood Spot Samples. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 2. For collection instructions, see Blood Spot Collection Instructions. 3. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 4. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800). SALIVA: Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Preferred: 1 OGD-675 Saliva Collection Container Acceptable: 2 ORAcollect OCD-100 Swabs Transport: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: 1. Saliva is acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from saliva, it is possible that additional specimen may be required to complete testing.

Specimen Minimum Volume: Blood: 1 mL; Blood spots: 2 spots; Skin biopsy, cultured fibroblasts, or saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

LSDGP
608011

Lysosomal Storage Disease Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection

Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are

preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

GSDGP
608012

Glycogen Storage Disease Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do

not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a ski or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi

Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

PDGP
608013

Peroxisomal Disorder Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007

or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic

Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

NCLGP
608014

Neuronal Ceroid Lipofuscinosis (Batten Disease) Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen

Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified

laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate);

88240-Cryopreservation (if appropriate);

APGP
608015

Acute Porphyria Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts

Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405; 81406 x 2; 81479; 81479 (if appropriate for government payers); 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

GALZ
608016

Galactosemia, GALT Gene, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. 4. Multiple whole blood tests for galactosemia can be performed on one specimen. Prioritize order of testing when submitting specimens. For a list of tests that can be ordered together, see Galactosemia-Related Test List. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight.. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in

the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen;

order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 Flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

CHLGP
608018

Cholestasis Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube:

Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens

received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

CLADP
608019

Congenital Lactic Acidosis Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is

also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24

hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 81460; 81465; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 81479 (if appropriate for government payers);

UCDP
608020

Urea Cycle Disorders Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with

any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a biopsy Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be

received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

MMAGP
608021

Methylmalonic Aciduria Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do

not stack wet specimens. 5. Keep specimen dry Send: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media

Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

MPAGP
608022

Methylmalonic Aciduria-Propionic Aciduria Combined Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if

using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight.. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture

charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 Flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

PCGP
608023

Porphyria Comprehensive Gene Panel, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405; 81406 x 2; 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 81479 (if appropriate for government payers);

KETGP
608024

Ketone Disorders Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight.. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube:

T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 Flasks Specimen Volume: 2 Full flasks Collection Instructions:

Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

DHCRZ
608025

Smith Lemli Opitz Syndrome, DHCR7 Gene, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit of only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood

collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a tissue biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be

accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

HEXBZ
608026

Sandhoff Disease, HEXB Gene, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube:

Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under

CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

CYSGP
608027

Cystinuria Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell [or liver] transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional

Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test

(including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

HFAOP
608028

Fatty Acid Oxidation Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24

hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL Tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); ;

GA2P
608029

Glutaric Aciduria Type II Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional InformationSpecimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight.. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube:

T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 Flasks Specimen Volume: 2 Full flasks Collection Instructions:

Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

2OHGP
608030

2-Hydroxyglutaric Aciduria Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see .How to Collect a Dried

Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Send: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the

maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

MSUDP
608031

Maple Syrup Urine Disease Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007

or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within

24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405; 81406 x 3; 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 81479 (if appropriate for government payers);

PHEGP
608032

Phenylalanine Disorders Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert

several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA

Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405; 81406 x 2; 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 81479 (if appropriate for government payers);

TYRGP
608033

Tyrosine Disorders Gene Panel, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406; 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 81479 (if appropriate for government payers);

3MGAP
608034

3-Methylglutaconic Aciduria Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of

DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on

the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

HBEL1
608083

Hemoglobin Electrophoresis Evaluation, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD solution B) Specimen Volume: 10 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL (this volume will limit reflex testing possibilities); 3 mL if multiplex ligation-dependent probe amplification is needed

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	7 days

CPT Code Information: 83020; 83021; 82664 (if appropriate); 83068 (if appropriate); 83789 (if appropriate); 88184 (if appropriate); 83020-26 (if appropriate);

THEV1
608085

Thalassemia and Hemoglobinopathy Evaluation, Blood and Serum

Specimen Requirements: Blood and serum are required. Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 15 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Specimen Type: Serum Patient Preparation: For 12 hour before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: 1. Within 2 hours of collection, serum gel tubes should be centrifuged. 2. Within 2 hours of collection, red-top tubes should be centrifuged and the serum aliquoted into a plastic vial. 3. Label specimen as serum.

Specimen Minimum Volume: Blood: 2.5 mL Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated	7 days
Whole Blood EDTA	Refrigerated	7 days

CPT Code Information: 83020-26-Hemoglobinopathy Interpretation; 83020-Hb Variant, A2 and F Quantitation; 83021; 82728; 82664 (if appropriate); 83068 (if appropriate); 83789 (if appropriate); 88184 (if appropriate);

MEVI
608086

Methemoglobinemia Interpretation (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	72 hours

CPT Code Information: 83020-26

EEEVI
608087

Red Blood Cell (RBC) Enzyme Interpretation (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	11 days

HBELI
608088

Hemoglobin Electrophoresis Interpretation (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	7 days

CPT Code Information:

MEV0
608089

Methemoglobin Summary Interpretation (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	

HAEV0
608090

Hemolytic Anemia Summary Interpretation (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	

HBEL0
608091

Hemoglobin Electrophoresis Summary Interpretation (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	

CPT Code Information: 83020-26

THEV0
608092

Thalassemia Summary Interpretation, Blood (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	

REVE0
608094

Erythrocytosis Summary Interpretation (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	

SHBG1
608102

Sex Hormone-Binding Globulin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 84270

TLYME
608104

Lyme IgM and IgG, Whole Cell Sonicate, ELISA, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	10 days
	Frozen	30 days

CPT Code Information: 86617 x 2

DOCK8
608112

Dedicator of Cytokinesis 8 (DOCK8) Deficiency, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	48 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 86356 x 4

DSAC
608236

Disaccharidase Activity Panel, Tissue

Specimen Requirements: Specimen Type: Tissue Source: Intestinal biopsy Supplies: 15 mL Tissue Tube-DSAC (T993) Container/Tube: 15 mL tissue tube Specimen Volume: 5 mg Collection Instructions: 1. Place specimen in tissue tube. 2. Specimen should not be placed on gauze, filter paper, or swabs/wooden sticks and should not have any saline, water, support, or embedding material added.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Frozen	28 days

CPT Code Information: 82657

FLCS
608250

Immunoglobulin Free Light Chains, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 83521 x 2

BALLM
608251

B-Cell Lymphoblastic Leukemia Monitoring, Measurable/Minimal Residual Disease Detection, Flow Cytometry, Varies

Specimen Requirements:

Specimen Minimum Volume: Whole blood: 2 mL Bone marrow: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	72 hours

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker 88185 x 9-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each) 88188-Flow Cytometry Interpretation, 9 to 15 Markers

BNZU
608255

Benzodiazepines Confirmation, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test. 3. Submitting less than 1 mL will compromise our ability to perform all necessary testing.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	14 days

CPT Code Information: G0480 ; 80347 (if appropriate for select payers); 80339 (if appropriate for select payers); 80368 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

BNZX
608279

Benzodiazepines Confirmation, Chain of Custody, Random, Urine

Specimen Requirements: Supplies: Chain of Custody Kit (T282) Container/Tube: Chain of custody kit containing the specimen containers, seals, and documentation required Specimen Volume: 5 mL Collection Instructions: Collect specimen in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing. Additional Information: Submitting less than 5 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	14 days

CPT Code Information: G0480; 80347 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

BRAFD
608305

BRAF V600E/V600K Somatic Mutation Analysis, Tumor

Specimen Requirements: Preferred: Submit both of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 5 unstained Collection Instructions: Submit the following slides: 1 slide stained with hematoxylin and eosin AND 5 unstained, nonbaked slides with 5-micron thick sections of the tumor tissue Note: The total amount of required tumor nuclei can be obtained by scraping up to 5 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81210; 88381-Microdissection, manual;

CSFP
608336

Carrier Screen, Focused Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA

requirements are inadequate. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81220; 81329; 81479 ; 81257; 81363 ; 81222; 81479 (if appropriate for government payers);

CFSMN
608349

Cystic Fibrosis and Spinal Muscular Atrophy Carrier Screen Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81220; 81329 ; 81222; 81479 (if appropriate for government payers);

MCM24
608378

Mast Cell Mediators, 24 Hour, Urine

Specimen Requirements: Patient Preparation: 1. Patients taking monoamine oxidase inhibitors (MAOIs) or aminoguanidine may have increased levels of N-methylhistamine. If medically feasible, patient must not take MAOIs or aminoguanidine for 3 weeks before specimen collection. For more information see Cautions. 2. Patients taking aspirin or nonsteroidal anti-inflammatory drugs (NSAIDs) may have decreased concentrations of prostaglandin F2 alpha. If medically feasible, the patient should not take aspirin for 2 weeks or NSAIDs for 72 hours before specimen collection. 3. Patients taking 5-lipoxygenase inhibitor zileuton (Zyflo) may have decreased concentrations of leukotriene E4. If medically feasible, the patient should not take zileuton for 48 hours before specimen collection. Supplies: Urine Container, 60 mL (T313) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 60-mL urine bottle Specimen Volume: 20 mL Collection Instructions: 1. Collect urine for 24 hours. 2. No preservative. 3. Aliquot urine into plastic tube and send to lab. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 10 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen	28 days

CPT Code Information: 82542; 84150;

MCMRU
608379

Mast Cell Mediators, Random, Urine

Specimen Requirements: Patient Preparation: 1. Patients taking monoamine oxidase inhibitors (MAOI) or aminoguanidine may have increased N-methylhistamine levels. If medically feasible, patient must not take MAOI or aminoguanidine for 3 weeks before specimen collection. For more information see Cautions. 2. Patients taking aspirin or nonsteroidal anti-inflammatory drugs (NSAIDs) may have decreased concentrations of prostaglandin F2 alpha. If medically feasible, the patient should not take aspirin for 2 weeks or NSAIDs for 72 hours before specimen collection. 3. Patients taking 5-lipoxygenase inhibitor zileuton (Zyflo) may have decreased concentrations of leukotriene E4. If medically feasible, the patient should not take zileuton for 48 hours before specimen collection. Supplies: Urine Container, 60 mL (T313) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 60-mL urine bottle Specimen Volume: 20 mL Collection Instructions: 1. Within a few hours of symptom

onset, collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 10 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen	28 days

CPT Code Information: 82570; 84150; 82542;

EHBAP
608396

Ehrlichia/Babesia Antibody Panel, Immunofluorescence, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86666 x 2; 86753;

GSH
608409

Glutathione, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 82978

G6PDC
608417

Glucose 6 Phosphate Dehydrogenase Enzyme Activity, Blood (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -HAEV1 / Hemolytic Anemia Evaluation, Blood -EEEV1 / Red Blood Cell (RBC) Enzyme Evaluation, Blood

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 82955

PKC
608418

Pyruvate Kinase Enzyme Activity, Blood (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: HAEV1 / Hemolytic Anemia Evaluation, Blood EEEV1 / Red Blood Cell (RBC) Enzyme Evaluation, Blood

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 84220

GPIC
608419

Glucose Phosphate Isomerase Enzyme Activity, Blood (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -HAEV1 / Hemolytic Anemia Evaluation, Blood -EEEV1 / Red Blood Cell (RBC) Enzyme Evaluation, Blood

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 84087

HKC
608420

Hexokinase Enzyme Activity, Blood (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -HAEV1 / Hemolytic Anemia Evaluation, Blood -EEEV1 / Red Blood Cell (RBC) Enzyme Evaluation, Blood

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 82657

AKC
608421

Adenylate Kinase Enzyme Activity, Blood (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -HAEV1 / Hemolytic Anemia Evaluation, Blood -EEEV1 / Red Blood Cell (RBC) Enzyme Evaluation, Blood

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 82657

PFKC
608422

Phosphofructokinase Enzyme Activity, Blood (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -HAEV1 / Hemolytic Anemia Evaluation, Blood -EEEV1 / Red Blood Cell (RBC) Enzyme Evaluation, Blood

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	11 days

CPT Code Information: 82657

PGKC
608423

Phosphoglycerate Kinase Enzyme Activity, Blood (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -HAEV1 / Hemolytic Anemia Evaluation, Blood -EEEV1 / Red Blood Cell (RBC) Enzyme Evaluation, Blood

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 82657

TPIC
608424

Triosephosphate Isomerase Enzyme Activity, Blood (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -HAEV1 / Hemolytic Anemia Evaluation, Blood -EEEV1 / Red Blood Cell (RBC) Enzyme Evaluation, Blood

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	20 days

CPT Code Information: 82657

THEVI
608425

Hemoglobinopathy Interpretation (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	7 days

CPT Code Information: 83020-26

REVEI
608426

Erythrocytosis Interpretation (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	7 days

CPT Code Information: 83020-26

HAEVI
608427

Hemolytic Anemia Interpretation (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD-B	Refrigerated	72 hours

CPT Code Information: 83020-26

WNCSF
608435

West Nile Virus, RNA, PCR, Molecular Detection, Spinal Fluid

Specimen Requirements: Collection Container/Tube: Preferred: Vial number 2 Acceptable: Any vial number Submission Container/Tube: Sterile screw cap vial Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge or heat inactivate.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

WNVS
608436

West Nile Virus, RNA, PCR, Molecular Detection, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container: Sterile container Specimen Volume: 0.5 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a sterile container. Additional Information: Serum specimens not aliquoted from the serum gel collection tube into a sterile container will be rejected.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

WNVUR
608437

West Nile Virus, RNA, PCR, Molecular Detection, Random, Urine

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

WNVBL
608438

West Nile Virus, RNA, PCR, Molecular Detection, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 1 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

P2PHI
608462

Prostate-Specific Antigen (PSA) and [-2]ProPSA with Prostate Health Index (PHI), Serum

Specimen Requirements: Patient Preparation: 1. Specimens for testing should be collected prior to prostate manipulations such as digital rectal examination (DRE), prostatic massage, transrectal ultrasound (TRUS), and prostatic biopsy. 2. A 6-week waiting period between needle biopsy and specimen collection is recommended. 3. Specimens should not be collected from patients receiving therapy with high biotin (vitamin B7) doses (ie, >5 mg/day) until at least 8 hours following the last biotin administration. Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Within 3 hours of collection, centrifuge, aliquot serum into a plastic vial, and refrigerate. Freeze sample within 24 hours of collection and send frozen.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen (preferred)	150 days
	Ambient	24 hours
	Refrigerated	24 hours

CPT Code Information: 84153-Total PSA; 84154-Free PSA; 86316-[-2]ProPSA;

AMH1
608824

Antimullerian Hormone, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	180 days
	Ambient	7 days

CPT Code Information: 82166

BFCC
608873

Cell Count and Differential, Body Fluid

Specimen Requirements: For Local Accounts Only Sources: Synovial, pleural, peritoneal, pericardial fluid Container/Tube: Preferred: Body fluid container Acceptable: Lavender top (EDTA) or green top (heparin) Specimen Volume: 1 mL

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Ambient (preferred)	24 hours
	Refrigerated	24 hours

CPT Code Information: 89051-Cell count with differential

EMAIG
608880

Endomysial Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 86231-screen; 86231-titer (if appropriate);

MPHNU 608882 Methylphenidate and Metabolite, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test. 3. Submitting less than 1 mL will compromise the ability to perform all necessary testing.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	10 days
	Frozen	28 days

CPT Code Information: G0480; 80360 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

HMUOE 608889 Heavy Metal Occupational Exposure, with Reflex, Random, Urine

Specimen Requirements: Patient Preparation: 1. For 48 hours before collection, patient should not eat seafood. 2. High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 6 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 82175; 82300; 83825; 83655; 82570;

ASOU 608890 Arsenic Occupational Exposure, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see: ASUOE / Arsenic Occupational Exposure with Reflex, Random, Urine HMUOE / Heavy Metal Occupational Exposure, with Reflex, Random, Urine

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 82175

CDOU 608892 Cadmium Occupational Exposure, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: CDUOE / Cadmium Occupational Exposure, Random, Urine HMUOE / Heavy Metal Occupational Exposure, with Reflex, Random, Urine

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82300

HGOU 608893 Mercury Occupational Exposure, Random, Urine (Non-

Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: HGUOE/ Mercury Occupational Exposure, Random, Urine HMUOE / Heavy Metal Occupational Exposure, with Reflex, Random, Urine

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 83825

PBOU
608894

Lead Occupational Exposure, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: PBUOE / Lead Occupational Exposure, Random, Urine HMUOE / Heavy Metal Occupational Exposure, with Reflex, Random, Urine

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83655

ASUOE
608895

Arsenic Occupational Exposure, with Reflex, Random, Urine

Specimen Requirements: Patient Preparation: 1. For 48 hours before specimen collection, patient should not eat seafood. 2. High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. 3. For industrial exposure monitoring, the recommended timing for specimen collection is at the end of the work week. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic vial or clean, plastic

aliquot container with no metal cap or glued insert Specimen Volume: 6 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 82175; 82570;

CDUOE
608896

Cadmium Occupational Exposure, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to interfere with most metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect urine a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82300 ; 82570 ;

HGUOE
608897

Mercury Occupational Exposure, Random, Urine

Specimen Requirements: Patient Preparation: 1. For 48 hours before collection, patient should not eat seafood. 2. High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours.

Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 83825; 82570;

PBUOE
608898

Lead Occupational Exposure, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to interfere with most metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic vial or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 83655; 82570;

HMUCR
608899

Heavy Metal/Creatinine Ratio, with Reflex, Random, Urine

Specimen Requirements: 1. For 48 hours before collection, patient should not eat seafood. 2. High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has

been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 6 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 82175; 82300; 83825; 83655; 82570;

ASCU
608900

Arsenic/Creatinine Ratio, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see: ASUCR / Arsenic/Creatinine Ratio, with Reflex, Random, Urine HMUCR / Heavy Metal/Creatinine Ratio, with Reflex, Random, Urine

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 82175

CDCU
608902

Cadmium/Creatinine Ratio, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information, see: CDUCR / Cadmium/Creatinine Ratio, Random, Urine HMUCR / Heavy Metal/Creatinine Ratio, with Reflex, Random, Urine

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82300

HGCU
608903

Mercury/Creatinine Ratio, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: HGUCR / Mercury/Creatinine Ratio, Random, Urine HMUCR / Heavy Metal/Creatinine Ratio, with Reflex, Random Urine.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 83825

PBCU
608904

Lead/Creatinine Ratio, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see: PBUCR / Lead/Creatinine Ratio, Random, Urine HMUCR / Heavy Metal/Creatinine Ratio, with Reflex, Random, Urine

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83655

ASUCR
608905

Arsenic/Creatinine, Ratio, with Reflex, Random, Urine

Specimen Requirements: Patient Preparation: 1. For 48 hours before specimen collection, patient should not eat seafood. 2. High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 6 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 82175 ; 82570;

CDUCR
608906

Cadmium/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to interfere with most metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect urine a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82300; 82570;

HGUCR
608907

Mercury/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: 1. For 48 hours before collection, patient should not eat seafood. 2. High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 83825; 82570;

PBUCR
608908

Lead/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to interfere with most metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 83655; 82570;

AGU20
608909

Acylglycines, Quantitative, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 10 mL Pediatric: If insufficient collection volume, submit as much specimen as possible in a single container; the laboratory will determine if volume is sufficient for testing. Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	416 days
	Refrigerated	9 days

CPT Code Information: 82542

SMAT
608956

Smooth Muscle Antibody Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a reflex. For more information see SMAS / Smooth Muscle Antibody Screen, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.8 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86015

PNTO
608969

Streptococcus pneumoniae IgG Antibodies, Total, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial

Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86317

PNTOR 608970 Streptococcus pneumoniae IgG Antibodies, Total, with Reflex, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86317; 86317 x 23 (if appropriate);

CLLMD 608972 Chronic Lymphocytic Leukemia (CLL) Monitoring Measurable/Minimal Residual Disease Detection, Flow Cytometry, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen as blood. Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Submission of bilateral specimens is not required. 2. Send bone marrow specimen in

original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	4 days
	Refrigerated	4 days

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker; 88185 x 9-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each); 88188-Flow Cytometry Interpretation, 9 to 15 markers;

MGLE
608979

Myasthenia Gravis/Lambert-Eaton Myasthenic Syndrome Evaluation, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, specimen collection is recommended prior to initiation of immunosuppressant medication. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86041; 86596; 86043 (if appropriate); 86366 (if appropriate);

MGMR
608980

Myasthenia Gravis Evaluation with Muscle-Specific Kinase (MuSK) Reflex, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, specimen collection is recommended prior to initiation of immunosuppressant medication or intravenous immunoglobulin treatment. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection

Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86041; 86043 (if appropriate); 86366 (if appropriate);

3FBLN
609271

Fibulin 3 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

1DIS
609354

Human Leukocyte Antigens (HLA) A-B-C Disease Association Typing Low Resolution, Blood

Specimen Requirements: Container/Tube: Yellow top (ACD solution A or B) Specimen Volume: 6 mL Collection Instructions: Send whole blood in original tube. Do not aliquot. Additional Information: Specimen acceptability is based on extracted DNA concentration and not sample age.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81372

2DIS
609356

Human Leukocyte Antigens (HLA)-DR-DQ Disease Association Typing Low Resolution, Blood

Specimen Requirements: Container/Tube: Yellow top (ACD solution A or B) Specimen Volume: 6 mL Collection Instructions: Send whole blood in original tube. Do not aliquot. Additional Information: Specimen acceptability is based on extracted DNA concentration and not sample age.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81375 ; 81376 x3;

TMSI
609364

Microsatellite Instability, Tumor

Specimen Requirements: This assay requires at least 40% tumor nuclei for endometrial specimens and at least 20% tumor nuclei for colorectal specimens. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 72 mm(2) -Minimum amount of tumor area: 18 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: formalin-fixed paraffin-embedded, non-decalcified Preferred: Submit 2, if available, of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 81301; 88381-Microdissection, manual;

SPASU
609383

Arsenic Speciation, 24 Hour, Urine

Specimen Requirements: Patient Preparation: 1. For the 48-hour period prior to start of collection, as well as during the collection, patient should not eat seafood. 2. High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10-mL tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 10 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection.. 3. See Metals Analysis Specimen Collection and Transport for complete instructions. Additional Information: For multiple collections see Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 82175

RP
609409

Respiratory Panel, PCR, Nasopharyngeal

Specimen Requirements: Specimen Type: Nasopharyngeal swab Supplies: -Culture Swab - Liquid Stuarts/Single Swab (NP Swab) (T515) -M4-RT (T605) Collection Container/Tube: Swab. See Additional Information for acceptable swab. Submission Container/Tube: Transport medium. See Additional Information for acceptable media. Specimen Volume: Nasopharyngeal swab in minimum volume of 1 mL of transport media Collection Instructions: Nasopharyngeal swab specimens should be collected according to standard technique and immediately placed into transport media and submitted for testing. Additional

Information: If any nasopharyngeal swab or transport media not listed below is utilized, testing may be canceled. -Acceptable nasopharyngeal (NP) swabs are Copan Rayon Swabs, Copan Nylon Flocked Swabs, Copan Polyester Swabs, Puritan Calcium Alginate Swabs, SteriFlock NP Swab -Acceptable transport media are Remel M4, Remel M4-RT, Remel M5, Remel M6, BD Universal Viral Transport Media (VTM), Copan Universal Transport Media (UTM), PrimeStore Molecular Transport Medium (MTM) -Acceptable collection and transport system is Sigma-Virocult Viral Collection and Transport System (Swab and transport medium)

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	72 hours
	Frozen	30 days
	Ambient	4 hours

CPT Code Information: 0202U

RAVU
609420

Ravulizumab, Serum

Specimen Requirements:

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	28 days
	Ambient	28 days
	Refrigerated	28 days

CPT Code Information: 80299

BETV2
609436

BET v2 (Profilin), IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x

number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 86008

MUXF3
609437

MUXF3 (Cross-reactive Carbohydrate Determinant), IgE, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 86008

PERAM
609438

Perampanel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top (serum gel/SST is not acceptable) Acceptable: None Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Draw blood immediately before next scheduled dose. 2. For sustained-release formulations ONLY, draw blood a minimum of 12 hours after last dose. 3. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

DEXA
609439

Dexamethasone, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Draw blood between 7:30 a.m. and 9:00 a.m. the morning following an evening dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial and freeze immediately. Do not send in original tube. 3. Send frozen.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	28 days
	Refrigerated	14 days
	Ambient	72 hours

CPT Code Information: 80299

RB24
609449

Retinol-Binding Protein, 24 Hour, Urine

Specimen Requirements: Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect urine for 24 hours. 2. No preservative. 3. Mix well before taking 5-mL aliquot. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 83883

BLBLF
609451

B-Cell Lymphoblastic Leukemia/Lymphoma, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 2 unstained for each probe set Collection Instructions: 1. If individual probe sets are chosen: Submit 1 slide stained with hematoxylin and eosin and, for each probe set ordered, submit 2 consecutive unstained, positively charged, unbaked slides with 5 micron-thick sections of the tumor tissue. 2. If a complete B-lymphoblastic leukemia/lymphoma (BLBL) panel is ordered: Submit 1 slide stained with hematoxylin and eosin and 20 consecutive unstained, positively charged, unbaked slides with 5 micron-thick sections of the tumor tissue. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained and 2 unstained per probe set requested

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x 2, 88291-DNA probe, each (first probe set), interpretation and report; 88271 x 2-DNA probe, each; each additional probe set (if appropriate); 88271-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271 x 2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271 x 3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

USTEK
609476

Ustekinumab Quantitation with Antibodies, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Draw blood immediately before the next dose of drug administration (trough level). 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 80299; 83520;

ELASF
609492

Pancreatic Elastase, Feces

Specimen Requirements: Supplies: Stool container, Small (Random), 4 oz (T288) Container/Tube: Stool container Specimen Volume: 5 g Collection Instructions: 1. Collect a fresh random fecal specimen, no preservatives. 2. If specimen is sent refrigerate, send immediately after collection. 3. If specimen cannot be sent immediately, freeze specimen and send frozen. Additional Information: 1. Separate specimens must be submitted when multiple tests are ordered, with the exception of CALPR / Calprotectin, Feces. If only a single specimen is collected, it must be split prior to transport. 2. Testing cannot be added on to a previously collected specimen.

Specimen Minimum Volume: 1 g

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen (preferred)	28 days
	Ambient	72 hours
	Refrigerated	72 hours

CPT Code Information: 82653

SCAP
609505

Spinocerebellar Ataxia Repeat Expansion Panel, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81178; 81179; 81180; 81181; 81184; 81479 (if appropriate for government payers);

SMAS
609515

Smooth Muscle Antibody Screen, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Specimen Volume: 0.8 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86015

BALAF
609537

B-Cell Acute Lymphoblastic Leukemia/Lymphoma (ALL), FISH, Adult, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x4,88275 x2, 88291 - FISH Probe, Analysis, Interpretation; 2 probe sets; 88271 x2, 88275 - FISH Probe, Analysis; each additional probe set (if appropriate); 88271 - FISH Probe (if appropriate);

TALAF
609557

T-Cell Acute Lymphoblastic Leukemia/Lymphoma (ALL), FISH, Adult, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x20, 88275x10, 88291x1-FISH Probe, Analysis, Interpretation; 10 probe sets; 88271x2, 88275x1-FISH Probe, Analysis; each additional probe set (if appropriate);

PGDBS
609664

Plasmalogens, Blood Spot

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Patient Preparation: Specimen must be collected either prior to or 6 weeks after a blood transfusion. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood spot collection card Acceptable: Local newborn screening card, PerkinElmer 226 filter paper, Munktell filter paper, Whatman Protein Saver 903 paper, or blood collected in tubes containing ACD, EDTA, or heparin spotted and dried on filter paper Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Samples. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to

heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred) 90 days/Refrigerated 90 days/Frozen 90 days Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions. 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800). Acceptable Specimen Type: Whole Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium or lithium heparin), yellow top (ACD solution A or B) Specimen Volume: 2 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Refrigerate (preferred) 14 days/Ambient 11 days

Specimen Minimum Volume: Blood spot: 1; Whole blood: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Varies	

CPT Code Information: 82542

PGRBC
609675

Plasmalogens, Blood

Specimen Requirements: Patient Preparation: Specimen must be collected either prior to or 6 weeks after a blood transfusion. Specimen Type: Whole Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium or lithium heparin), yellow top (ACD solution A or B) Specimen Volume: 5 mL Collection Instructions: Send specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	14 days
	Ambient	14 days

CPT Code Information: 82542

SCARA
609698

Spinocerebellar Ataxia Type 1, 2, 3, 6, or 7, Repeat Expansion Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any

anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred)/Ambient Additional information: 1. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. 2. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated Additional Information: 1. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 2. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Acceptable: Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Amniotic fluid: 10 mL Blood: 0.5 mL Chorionic villi: 5 mg

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 88233-Fibroblast Culture (if appropriate); 88235-Amniotic Fluid Culture (if appropriate); 88240-Cryopreservation (if appropriate); 81265-Maternal Cell Contamination (if appropriate); 81178 (if appropriate); 81179 (if appropriate); 81180 (if appropriate); 81181 (if appropriate); 81184 (if appropriate);

MESOF
609714

Mesothelioma, CDKN2A FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block (fresh tissue is not acceptable) Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Blocks prepared with alternative fixation methods (eg, Prefer, Bouin's) will be attempted but are less favorable for successful results. Provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Decalcified paraffin-embedded specimens will have testing attempted; however, the success rate is approximately 50%. Testing may be canceled if sufficient tumor tissue is not present. 3. Submitted fresh tissue specimens will be canceled upon receipt. If only fresh tissue is available, embed in paraffin prior to sending. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 4 unstained Collection Instructions: Submit 1 slide stained with hematoxylin and eosin and 4 consecutive unstained, positively charged, unbaked slides with 5-micron thick sections of the tumor tissue. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

ALBR
609731

Albumin, Random, Urine

Specimen Requirements: Patient Preparation: Heavy exercise should be avoided prior to collection. Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	7 days

CPT Code Information: 82043; 82570;

ISNGS
609732

Identification, Next-Generation Sequencing (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 87798

MRSAP
609735

Methicillin Resistant Staphylococcus aureus, PCR, Nasal

Specimen Requirements: Specimen Type: Nasal cavity swab Supplies: BD E-Swab (T853) Container/Tube: Preferred: BD Liquid Amies Elution Swab (E-Swab) Acceptable: Copan Liquid Amies Elution Swab (ESwab); Cepheid nasal sample collection device (dual swab in liquid Stuart media); or Copan swab and transport systems (LQ Stuart or LQ Amies) (scored swabs only) Specimen Volume: Entire collection Collection Instructions: 1. Ask the patient to blow their nose prior to collection. 2. Use one swab for both right and left nares. 3. Insert the white Dacron swab tip (do not insert any further in) into the anterior nares. 4. Rotate the swab for 3 seconds against the nasal mucosa. Apply slight pressure on the outside of the nose with your finger to ensure good contact. 5. Repeat the process on the other nostril. 6. Insert the swab back into the carrier. The swabs should go all the way into the transport container. Tightly cap the container. 7. Label the transport container with patient label and send refrigerate.

Specimen Minimum Volume: See Specimen Required.

Transport Temperature:

Specimen Type	Temperature	Time
Swab	Refrigerated (preferred)	5 days
	Ambient	24 hours

CPT Code Information: 87641

ALGAL
609737

Galactose-Alpha-1,3-Galactose (Alpha-Gal), IgE, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86008

APGAL
609738

Galactose-Alpha-1,3-Galactose (Alpha-Gal) Mammalian Meat Allergy Profile, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003 x 4; 86008;

CARU
609739

Cyclic Adenosine Monophosphate (cAMP), Urinary Excretion, Serum and Urine

Specimen Requirements: Both serum and urine are required. Serum must be collected at the time of the urine collection. Specimen Type: Serum Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Within 2 hours of collection serum gel tubes should be centrifuged. 2. Within 2 hours of collection red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial. 3. Label specimen as serum. Specimen Type: Urine Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic vial Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. Label specimen as urine.

Specimen Minimum Volume: Serum: 0.5 mL Urine: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 82030; 82570; 82565;

HCVSP
609748

Hepatitis C Virus (HCV) Antibody Screen Prenatal, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.3 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 86803 ; G0472 (if appropriate for government payers); 87522 Hepatitis C, quantification (if appropriate);

HCVRP
609749

Hepatitis C Virus (HCV) RNA Detection and Quantification, Real-Time Reverse Transcription-PCR, Prenatal, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 87522

AFXN
609751

Friedreich Ataxia, Repeat Expansion Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone

marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days /Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks is required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type

listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81284; 81265-Maternal Cell Contamination (if appropriate); 88233-Fibroblast Culture (if appropriate); 88235-Amniotic Fluid Culture (if appropriate); 88240-Cryopreservation (if appropriate);

PMND1
609778

Primary Membranous Nephropathy Diagnostic Cascade, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	8 hours

CPT Code Information: 83520; 86255 (x1 or x2, if appropriate);

AIHL
609784

Aminoglycoside-Induced Hearing Loss, Targeted Variant Testing, Droplet Digital PCR, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood

specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81401

DCME
609795

Dendritic Cell and Monocyte Enumeration, Blood

Specimen Requirements: Container/Tube: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not open tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
WB Sodium Heparin	Ambient	36 hours	GREEN TOP/HEP

CPT Code Information: 86356 x 3

GLUR1
609796

Glucose, Random, Urine

Specimen Requirements: Container/Tube: Plastic urine container Specimen Volume: 20 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	72 hours
	Ambient	2 hours

CPT Code Information: 82945

288PD
609994

Programmed Death-Ligand 1 (PD-L1) (28-8), Semi-Quantitative Immunohistochemistry, Manual

Specimen Requirements: This assay requires at least 100 viable tumor cells. Specimen Type: Tissue Supplies: Pathology Packaging Kit (T554) Submit: Formalin-fixed, paraffin-embedded tissue block OR 3 Unstained glass, "positively charged" slides with 4-microns formalin-fixed, paraffin-embedded tissue Additional Information: 1.One slide will be stained with hematoxylin and eosin and returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

SCERA
610002

Saccharomyces cerevisiae Antibody, IgA, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86671

SCERG
610003

Saccharomyces cerevisiae Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic

vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86671

IBDP2
610004

Inflammatory Bowel Disease Serology Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86671 x 2; 86036;

RCVBS
610009

Recoverin-IgG Antibody, Immunoblot, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 84182

RBR
610010

Retinol-Binding Protein, Random, Urine

Specimen Requirements: Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 83883-Retinol -Binding Protein, Random, U; 82570-Creatinine, Random, U;

MONOF
610018

Monocyte Repartition by CD14/CD16, Blood

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated	72 hours

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker; 88185 x 7-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each); 88187-Flow

Cytometry Interpretation, 2 to 8 markers;

ACMFS 610029 Acetylcholine Receptor Modulating Antibody, Flow Cytometry Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: MGLE / Myasthenia Gravis/Lambert-Eaton Myasthenic Syndrome Evaluation, Serum MGMR / Myasthenia Gravis Evaluation with Muscle-Specific Kinase (MuSK) Reflex, Serum PAVAL / Paraneoplastic, Autoantibody Evaluation, Serum Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86043

ANCA2 610030 Cytoplasmic Neutrophil Antibodies, Inflammatory Bowel Disease Panel, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see IBDP2 / Inflammatory Bowel Disease Serology Panel, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86036

2SC
610031

S-(2-Succinyl)-Cysteine (2SC) Immunostain, Technical Component Only

Specimen Requirements: Supplies: Immunostain Technical Only Envelope (T693) Specimen Type: Tissue Container/Tube: Immunostain Technical Only Envelope Preferred: 2 unstained positively charged glass slide (25- x 75- x 1-mm) per test ordered; sections 4-microns thick. Acceptable: Formalin-fixed, paraffin-embedded (FFPE) tissue block Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

SCCA
610033

Squamous Cell Carcinoma Antigen, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Information: Centrifuge and aliquot serum into a plastic vial. Do not submit in original tube.

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 86316

1A2Q
610041

Cytochrome P450 1A2 Genotype, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a

single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor or a liver transplant will interfere with testing. For information about testing patients who have received a hematopoietic stem cell or liver transplant call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

2B6Q
610042

Cytochrome P450 2B6 Genotype, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor or a liver transplant will interfere with testing. For information about testing patients

who have received a hematopoietic stem cell or liver transplant call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

2C19R
610043

Cytochrome P450 2C19 Genotype, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous hematopoietic stem cell or liver transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell

transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81225

2C9QT
610044

Cytochrome P450 2C9 Genotype, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 9

days/Refrigerated 30 days Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: 2-mL screw top tube Specimen Volume: 100 mcL (microliters) Collection Instructions: 1. The preferred volume is 100 mcL at a concentration of 50 ng/mcL. 2. Provide concentration of DNA and volume on tube. Specimen Stability Information: Frozen (preferred)/Ambient/Refrigerated

Specimen Minimum Volume: Blood: 0.4 mL Saliva, extracted DNA: see Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81227

2D6Q
610045

Cytochrome P450 2D6 Comprehensive Cascade, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 9 days/Refrigerated 30 days Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: 2 mL screw top tube Specimen Volume: 100 mcL (microliters) Collection Instructions: 1. The preferred volume is 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated

Specimen Minimum Volume: Whole blood: 1 mL Saliva: 1 swab

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 0070U; 0071U (if appropriate); 0076U (if appropriate);

3A4Q
610046

Cytochrome P450 3A4 Genotype, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor or a liver transplant will interfere with testing. For more information about testing patients who have received a hematopoietic stem cell or liver transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81230-CYP3A4

3A5Q
610047

Cytochrome P450 3A5 Genotype, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor or liver transplant will interfere with testing. For more information about testing patients who have received a hematopoietic stem cell or liver transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81231-CYP3A5

CARBR
610048

Carbamazepine Hypersensitivity Pharmacogenomics, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81381 x 2

COMTQ
610049

Catechol-O-Methyltransferase (COMT) Genotype, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed, and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 0032U

DPYDZ
610051

Dihydropyrimidine Dehydrogenase, DPYD Full Gene Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant or a liver transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell or liver transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Gray top (sodium fluoride/potassium oxalate) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient 4 days (preferred)/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection

card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Samples. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81232

DPYDQ
610052

Dihydropyrimidine Dehydrogenase Genotype, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient

tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81232

G6PDZ
610053

Glucose-6-Phosphate Dehydrogenase (G6PD) Full Gene Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal

Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81249

HL57R
610054

HLA-B*57:01 Genotype, Pharmacogenomics, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous hematopoietic stem cell transplant or liver transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell or liver transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on

both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81381

HL58R
610055

HLA-B*5801 Genotype, Allopurinol Hypersensitivity, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous hematopoietic stem cell transplant or liver transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell or liver transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva

Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: Saliva Swab Collection Kit (T786) Specimen Volume: 1 Swab Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81381

IL28Q
610056

Interleukin 28B (IL28B) Variant (rs12979860), Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing

may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Specimen Volume: 100 mcL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1year /Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81283

PGXQP
610057

Focused Pharmacogenomics Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order

numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81418; 0071U (if appropriate); 0072U (if appropriate); 0073U (if appropriate); 0074U (if appropriate); 0075U (if appropriate); 0076U (if appropriate);

PKLRZ
610058

PKLR Full Gene Analysis, Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogeneic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405

PSYQP
610060

Psychotropic Pharmacogenomics Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient 4 days (preferred)/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81418

SLC1Q
610061

Solute Carrier Organic Anion Transporter Family Member 1B1 (SLCO1B1) Genotype, Statin, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous hematopoietic stem cell transplant or liver transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell or liver transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81328

TPNUQ
610062

Thiopurine Methyltransferase (TPMT) and Nudix Hydrolase (NUDT15) Genotyping, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 0034U

U1A1Q
610063

Uridine Diphosphate (UDP) Glucuronosyltransferase 1A1 TA Repeat Genotype, UGT1A1, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81350-UGT1A1 (UDP glucuronosyltransferase 1 family, polypeptide AI) (eg, irinotecan metabolism), gene analysis, common variants (eg, *28, *36, *37)

UGTFZ
610064

UDP-Glucuronosyltransferase 1A1 (UGT1A1), Full Gene Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor or a liver transplant will interfere with testing. For information about testing patients who have received a hematopoietic stem cell or liver transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81404

WARSQ
610065

Warfarin Response Genotype, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous hematopoietic stem cell transplant or liver transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell or liver transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 0030U

TCRB
610067

T-Cell Receptor V-Beta Repertoire Analysis, Spectratyping, Blood

Specimen Requirements: For serial monitoring, it is recommended to perform specimen collection at the same time of day, if possible. Supplies: Ambient Shipping Box-Critical Specimens Only (T668) Specimen Type: Blood Container/Tube: Lavender top (EDTA) Specimen Volume: Adults: 10 mL Pediatrics: -Preferred volume for >1 year: 3 mL -Preferred volume for < or =1 year: 1 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Adults: 5 mL Pediatrics: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	48 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81340-TRG (T cell antigen receptor, beta) (eg, leukemia and lymphoma), gene rearrangement analysis to detect abnormal clonal population(s); using amplification methodology (eg, polymerase chain reaction)

TRECS
610068

T-Cell Receptor Excision Circles Analysis, Blood

Specimen Requirements: For serial monitoring, it is recommended to perform specimen collection at the same time of day, if possible. Supplies: Ambient Shipping Box-Critical Specimens Only (T668) Container/Tube: Lavender top (EDTA) Specimen Volume: Adults: 10 mL Pediatrics -Preferred volume for >1 year: 5 mL -Preferred volume for < or =1 year old: 3 mL Collection Instructions: 1. Do not collect specimen using a butterfly needle. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Adults: 10 mL Pediatrics: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole Blood EDTA	Ambient	48 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81479-Unlisted molecular pathology procedure

IETG
610069

Interference Evaluation Heterophile, Thyroglobulin Tumor Marker, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 84432; 86800; 84432;

TGQN
610070

Thyroglobulin, Tumor Marker, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see IETG / Interference Evaluation Heterophile, Thyroglobulin Tumor Marker, Serum. Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7) Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: None (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 84432

TGABI
610071

Thyroglobulin Antibody, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see IETG / Interference Evaluation Heterophile, Thyroglobulin Tumor Marker, Serum. Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: None (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86800

TGII
610072

Thyroglobulin, Interference Interpretation (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

EMICZ
610074

Emicizumab, Modified One Stage Assay Factor VIII, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	42 days

CPT Code Information: 80299

RPMPM
610248

Mycoplasma (Mycoplasmoides) pneumoniae Macrolide (Azithromycin) Resistance Prediction, Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Mycoplasma (Mycoplasmoides) pneumoniae DNA is unlikely. Submit only 1 of the following specimens: Specimen Type: Swab Supplies: -Culturette (BBL Culture Swab) (T092) -BD E-swab (T853) -Culture Swab-Liquid Stuarts/Single Swab (NP Swab) (T515) -M4-RT (T605) Sources: Throat, nasal, or nasopharyngeal Container/Tube: Preferred: Culture swab transport system (Dacron or rayon swab with aluminum or plastic shaft with either Stuart or Amies liquid medium) Acceptable: Culture transport swab (Stuart's media) or place swab in M4, M4-RT, M5, M6, universal transport media, or ESwab Specimen Volume: Swab Collection Instructions: 1. Collect specimen by swabbing back and forth over mucosa surface to maximize recovery of cells. 2. Place swab back into swab cylinder. Specimen Type: Fluid Sources: Pleural, pericardial, cerebrospinal Container/Tube: Sterile container Specimen Volume: 0.5 mL Specimen Type: Respiratory Sources: Bronchial washing, bronchoalveolar lavage, tracheal secretions, sputum Container/Tube: Sterile container Specimen Volume: 1 mL

Specimen Minimum Volume: Respiratory: 0.5 mL Other specimen types: See Specimen Required

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

GAPCR
610254

Streptococcus Group A, Molecular Detection, PCR, Throat

Specimen Requirements: Patient Preparation: Do not collect throat swab specimens immediately

after use of antiseptic mouthwash. Specimen Type: Throat swab Supplies: BD E-Swab (T853) Container/Tube: Preferred: BD Liquid Amies Elution Swab (ESwab) Acceptable: Copan Liquid Amies Elution Swab (ESwab) Specimen Volume: Entire collection/1 ESwab Collection Instructions: 1. Must be collected and transported using the ESwab collection kit. 2. Using a tongue blade to hold the tongue down, firmly rub the swab over the tonsils, posterior pharynx, and any areas of inflammation with exudate. Ensure that areas with exudate or inflammation are swabbed. 3. Avoid the tongue, teeth, and gums as the swab is withdrawn. 4. Insert the swab back into the ESwab transport tube and break the swab at the indicated score line. 5. Label specimen according to policy. 6. Send refrigerated. Do not freeze.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	6 days
	Ambient	48 hours

CPT Code Information: 87651

CYPAN
610259

Cytokine Panel, Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	21 days

CPT Code Information: 83520 x 10; 83529;

IN16Q
610266

CBFB::MYH11 Inversion(16), Quantitative Detection and Minimal Disease Risk Monitoring, qRT-PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Blood Container/Tube: Lavender top (EDTA) or yellow top (ACD-B) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) or yellow top (ACD-B) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: Blood: 8 mL; Bone marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	5 days
	Ambient	72 hours

CPT Code Information: 81401-CBFB-MYH11

CSMPU
610271

Controlled Substance Monitoring Profile, Random, Urine

Specimen Requirements: Supplies: Urine Container, 60 mL (T313) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 60-mL urine container Specimen Volume: 30 mL Collection Instructions: 1. Collect a random urine specimen. 2. Submit 30 mL in 1 plastic bottle. 3. No preservative. Additional Information: 1. No specimen substitutions. 2. Submitting less than 30 mL may compromise the ability to perform all necessary testing. 3. STAT requests are not accepted for this test.

Specimen Minimum Volume: 20 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 80307; G0482; 80347 (if appropriate for select payers); 80364 (if appropriate for select payers); 80326 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

TSPU
610272

Targeted Stimulant Screen, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	28 days

CPT Code Information: G0480; 80326 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

WEGG
610357

Whole Egg, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL For more than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL deadspace

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

A124
610363

Alpha-1-Microglobulin, 24 Hour, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 4 mL Collection Instructions: 1. Collect urine for 24 hours. 2. No added preservative preferred. 3. Mix well before taking 4-mL aliquot. Additional Information: For multiple collections see Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	7 days

CPT Code Information: 83883

RA1U
610364

Alpha-1-Microglobulin, Random, Urine

Specimen Requirements: Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 83883; 82570;

SVISC
610406

Viscosity, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 2.0 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 85810

HPFLU
610411

Influenza Virus Type A and Type B and Respiratory Syncytial Virus (RSV) RNA, Molecular Detection, PCR, Varies

Specimen Requirements: Preferred: Specimen Type: Nasopharyngeal swab Container/Tube: Sterile container with viral transport media Specimen Volume: Entire specimen with a minimum of 1.5 mL (maximum 3 mL) of transport media Collection Instructions: 1. Collect specimen by swabbing back and forth over mucosa surface to maximize recovery of cells. 2. Swab must be placed into viral transport media (eg, M4-RT, M4 or M5), saline, or phosphate buffered saline (PBS). Media should not contain

guanidine thiocyanate (GTC). Specimen Type: Bronchoalveolar lavage fluid Container/Tube: Sterile container Specimen Volume: 0.6 mL Additional Information: Do not aliquot into viral transport media. Acceptable: Specimen Type: Oropharyngeal (throat) swab, nasal mid-turbinate, or nares/nasal swab Supplies: -Culturette (BBL Culture Swab) (T092) -Swab, Sterile Polyester (T507) Collection Container/Tube: Preferred: BBL Culture Swab or COPAN Mid-Turbinate Swab Acceptable: Dacron-tipped swab with plastic handle Submission Container/Tube: Swab in sterile container with transport media Specimen Volume: Entire specimen with a minimum of 1.5 mL (maximum 3 mL) of transport media Collection Instructions: Swab must be placed into viral transport media (eg, M4-RT, M4, or M5), saline, or PBS. Media should not contain guanidine thiocyanate (GTC). Specimen Type: Bronchial washings, endotracheal aspirate, sputum Container/Tube: Sterile container Specimen Volume: 0.6 mL Additional Information: Do not aliquot into viral transport media.

Specimen Minimum Volume: Upper respiratory tract swab: See Specimen Required; Lower respiratory specimens: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Frozen (preferred)	14 days
	Refrigerated	72 hours

CPT Code Information: 87631

CHF8
610419

Chromogenic Factor VIII Activity Assay, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85130

CHF8P
610420

Chromogenic Factor VIII Inhibitor Bethesda Profile, Plasma

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: CHF8-85130; CH8B-85335; CH8BI-85390-26;

PTRIP
610456

Prostate Triple (P63/KRT/P504S), Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88344-TC

P504S
610458

P504S Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HBCPR
610462

Hepatitis B Virus Core Total Antibodies Prenatal, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86704

HBABP
610465

Hepatitis B Virus Surface Antibody Prenatal, Qualitative/Quantitative, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86706

HBGSN
610468

Hepatitis B Virus Surface Antigen Screen, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.9 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 87340; G0499 (if appropriate); 87341 (if appropriate);

HBCSN
610471

Hepatitis B Virus Core Total Antibodies Screen, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86704; G0499 (if appropriate);

HBBSN
610474

Hepatitis B Virus Surface Antibody Screen, Qualitative/Quantitative, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86706; G0499 (if appropriate);

UPII
610490

Uroplakin II Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TYRSC
610495

Tyrosinemia Follow-Up Panel, Self-Collect, Blood Spot

Specimen Requirements: Container/Tube: Blood Spot Card Specimen Volume: 2 Blood spots Additional Information: 1. Order test each time the patient is to collect a dried blood specimen at home and mail the specimen directly to Mayo Clinic Laboratories. 2. Order should be placed a minimum of 3 days prior to desired date of collection. 3. Enter patient's address information for each order created, including street address (post-office [PO] boxes are not acceptable delivery locations), city, state abbreviation, zip code, country, and home phone number. 4. For each order, the Blood Spot Collection-Self Collect kit will be mailed directly to the patient for self-collection (delivery to a PO box will not occur). 5. For more information on how to collect blood spots, see the following -How to Collect a Dried Blood Spot Sample via fingerstick -Blood Spot Collection Instructions-Fingerstick -Blood Spot Collection Instructions-Fingerstick-Spanish

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	7 days	FILTER PAPER
	Frozen	90 days	FILTER PAPER
	Refrigerated	14 days	FILTER PAPER

CPT Code Information: 0383U

PKUSC
610508

Phenylalanine and Tyrosine, Self-Collect, Blood Spot

Specimen Requirements: Container/Tube: Blood Spot Card Specimen Volume: 2 Blood spots Additional Information: 1. Order test each time the patient is to collect a dried blood specimen at home and mail the specimen directly to Mayo Clinic Laboratories. 2. Order should be placed a minimum of 3 days prior to desired date of collection. 3. Enter patient's address information for each order created, including street address (post office [PO] boxes are not acceptable delivery locations), city, state abbreviation, zip code, country, and home phone number. 4. For each order, the Blood Spot Collection-Self Collect kit will be mailed directly to the patient for self-collection (delivery to a PO box will not occur). 5. For more information on how to collect blood spots, see the following: -How to Collect a Dried Blood Spot Sample via fingerstick. -Blood Spot Collection Instructions-Fingerstick -Blood Spot Collection Instructions-Fingerstick-Spanish

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	90 days	FILTER PAPER
	Frozen	90 days	FILTER PAPER
	Refrigerated	90 days	FILTER PAPER

CPT Code Information: 0382U

ALBS1
610525

Albumin, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see: SFIG / Cerebrospinal Fluid (CSF) IgG Index Profile, Serum and Spinal Fluid. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	120 days
	Ambient	7 days

CPT Code Information: 82040

EOSU1
610552

Eosinophils, Random, Urine

Specimen Requirements: Container/Tube: Unstained cytospin slide Specimen Volume: 1 slide Collection Instructions: 1. Collect a random urine specimen. 2. Centrifuge 10 mL of a random urine collection. 3. Pour off supernatant. Assess urine sediment for presence of white blood cells (WBC). If no WBC are seen, the eosinophil test cannot be performed. If WBC are present, prepare slides using the centrifuged sediment. 4. The unstained slide should be prepared within 2 hours of collection. Only an unstained slide will be accepted. Any other specimen, including the raw urine specimen, will be rejected. 5. Centrifuge urine in cytospin centrifuge at speed of 750 rpm for 5 minutes. 6. Slides need to be labeled with patient name and date of birth 7. Guidelines for slide preparation. Use the sediment to prepare slides as follows: a. 150 mcL of sample for 1 to 3 WBC/high power field (hpf) b. 100 mcL of sample for moderate to normal sediment (<50 cell/hpf) c. 50 mcL of sample for heavier sediment (>50 cells/hpf) d.

25 mcL for packed fields of sediment

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Urine	Ambient (preferred)	14 days	SLIDE
	Frozen	14 days	SLIDE
	Refrigerated	14 days	SLIDE

CPT Code Information: 85999

CALC5
610591

Calcium, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see CACR3 / Calcium/Creatinine Ratio, Random, Urine Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 5-mL tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 82310

CCTR
610592

Calcium/Creatinine Ratio, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see CACR3 / Calcium/Creatinine Ratio, Random, Urine Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 5-mL tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	72 hours

CACR3
610594

Calcium/Creatinine Ratio, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Clean, plastic urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 5-mL tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 82310; 82570;

CALU
610595

Calcium, 24 Hour, Urine

Specimen Requirements: Patient Preparation: Patient should not use a laxative during the 24-hour collection period. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: 24-hour graduated urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 5 mL tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 4 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 82340

CRT24
610597

Creatinine, 24 Hour, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -NMH24 / N-Methylhistamine, 24 Hour, Urine -RB24 / Retinol-Binding Protein, 24 Hour, Urine -A124 / Alpha-1-Microglobulin, 24 Hour, Urine

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information:

CRETR
610598

Creatinine, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see orderable test ID. Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 82570

CTU
610601

Creatinine, 24 Hour, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: 24-hour graduated urine container with no metal cap or glued insert Submission

Container/Tube: Plastic tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 4 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. Additional Information: 1. This test does not require the use of a chemical preservative; if a chemical preservative is used, it must be added to the specimen within 4 hours of completion of 24-hour collection. 2. See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 82570

RCTUR
610603

Creatinine, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 6 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 82570

RCHLU
610607

Chloride, Random, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 82436

SSX18
610609

Synovial Sarcoma Panel, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

NAT2Q
610617

N-Acetyltransferase 2 (NAT2) Genotype, Varies

Specimen Requirements: Multiple genotype tests can be performed on a single specimen after a single extraction. See Multiple Genotype Test List for a list of tests that can be ordered together. Patient Preparation: A previous hematopoietic stem cell transplant or liver transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell or liver transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing

may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479-Unlisted molecular pathology procedure

CIFA
610627

Cutaneous Immunofluorescence Antibodies, IgA, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 88346

CRSBF
610646

Crystal Identification, Body Fluid

Specimen Requirements: Specimen Required Specimen Type: Synovial Fluid, Prosthetic Joint Fluid Container/Tube: Lavender top (EDTA) Acceptable: Green top (heparin) Specimen Volume: 2 mL Specimen Type: Bile Fluid Container/Tube: Red top Specimen Volume: 2 mL Specimen Type: Bronchoalveolar Lavage (BAL) Container/Tube: Body fluid container Specimen Volume: 2 mL Specimen Type: Pleural Fluid, Peritoneal Fluid, Pericardial fluid Container/Tube: Preferred: Body fluid container Acceptable: Lavender top (EDTA) or Green top (heparin) Specimen Volume: 2 mL

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Refrigerated (preferred)	
	Ambient	24 hours
	Frozen	

CPT Code Information: 89060

KRASP
610679

KRAS Somatic Mutation Analysis, Tumor

Specimen Requirements: Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred), or at least 3000

nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81275-KRAS (v-Ki-ras2 Kirsten rat sarcoma viral oncogene) (eg, carcinoma) gene analysis, variants in codons 12 and 13; 81276-KRAS additional variant(s); 88381-Microdissection, manual;

RKUR
610696

Potassium, Random, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84133

EGGPF
610705

Egg Comprehensive Profile, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL; if needed, 0.5 mL for every 5 additional allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003 x 3; 86008 x 2;

EGWTP
610706

Egg White Component Profile, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.75 mL; if needed, 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003 x 1; 86008 x 2;

OAUS
610707

Organic Acids Screen, Urine Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Collection Container: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 paper, PerkinElmer 226 filter paper, Munktell filter paper Specimen Volume: 1 Filter paper card soaked with urine, typically requires 2 to 3 mL of urine Collection Instructions 1. Soak a filter paper card with urine, approximately 22 cm(2) in area (typically requires 2 to 3 mL of urine; exact measurement is not important as urine volume will be normalized to creatinine). Note: Filter paper sample may be collected by dipping the card into a collection cup of urine. Avoid dilute urine if possible. 2. Let urine dry on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Urine	Frozen (preferred)	28 days	FILTER PAPER
	Ambient	14 days	FILTER PAPER
	Refrigerated	14 days	FILTER PAPER

CPT Code Information: 83919

IODCU
610708

Iodine/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10-mL urine tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 83789; 82570;

CLLDF
610713

Chronic Lymphocytic Leukemia, Diagnostic FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood in original tube. Do not aliquot. Acceptable Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow in original tube. Do not aliquot.

Specimen Minimum Volume: Whole blood: 2 mL; Bone marrow: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x12, 88275x6, 88291-FISH Probe, Analysis, Interpretation; 6 probe sets; 88271x2, 88275-FISH Probe, Analysis; each additional probe set (if appropriate);

CLLMF
610724

Chronic Lymphocytic Leukemia, Specified FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood in original tube. Do not aliquot. Acceptable Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow in original tube. Do not aliquot.

Specimen Minimum Volume: Whole blood: 2 mL; Bone marrow: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88275, 88291-FISH Probe, Analysis, Interpretation; 1 probe set; 88271x2, 88275-FISH Probe, Analysis; each additional probe set (if appropriate);

NAU
610734

Sodium, 24 Hour, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: 24-hour graduated urine container with no metal cap or glued insert Submission Container/Tube: Plastic tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 5 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84300

LPALD
610738

Lipoprotein (a) and Low-Density Lipoprotein Cholesterol, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 8 hours, required 2. Patient must abstain from alcohol for 24 hours before collection. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 4 mL serum Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial. 2. Send refrigerated.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	60 days

CPT Code Information: 83700; 83701;

MAGU
610768

Magnesium, 24 Hour, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: 24-hour graduated urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 5 mL tube or a clean, plastic urine container with no metal cap or glued insert Specimen Volume: 4 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 83735

SFIG
610783

Cerebrospinal Fluid IgG Index Profile, Serum and Spinal Fluid

Specimen Requirements: Both serum and spinal fluid are required. -Spinal fluid must be obtained within 7 days of serum collection. -Two individual serum samples are required. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: 2 Plastic vials Specimen Volume: 2 mL Serum in 2 separate plastic vials (see Collection Instructions) Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into 2 plastic vials, each containing 1 mL. Specimen Type: Spinal fluid Container/Tube: Sterile vial Preferred: Collection vial number 2 Specimen Volume: 1 mL Collection Instructions: Label specimen as SFINC.

Specimen Minimum Volume: Serum: 1 mL in 2 plastic vials, each vial containing 0.5 mL; Spinal fluid: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 82040; 82042; 82784 x 2;

SFIGS
610784

IgG, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see SFIG / Cerebrospinal Fluid IgG Index Profile, Serum and Spinal Fluid. Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82784

RNAUR
610785

Sodium, Random, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84300

RPHOC
610829

Phosphorus, Random, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84105

POU
610832

Phosphorus, 24 Hour, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: 24-Hour graduated urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 5 mL tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 4 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84105

ALUCR
610838

Aluminum/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container with no metal cap or glued insert Submission Container/Tube: Plastic urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82570; 82108;

ALCU
610839

Aluminum/Creatinine Ratio, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see ALUCR / Aluminum/Creatinine Ratio, Random, Urine. Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container with no metal cap or glued insert. Submission Container/Tube: Plastic urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82108

SMAD4
613980

SMAD4 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PTU
614001

Protein, Total, 24 Hour, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: 24-hour graduated urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 5 mL tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 4 mL Collection Instructions: 1. Collect urine for 24 hours. Specimens should be collected before fluorescein is given or not collected until at least 24 hour later. 2. No preservative. 3. Invert well before taking 4-mL aliquot. 4. Do not over fill aliquot tube 4 mL at most. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 84156

RPTU1
614004

Protein/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: Specimens should be collected before fluorescein is given or not collected until at least 24 hour later. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic vial Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. 3. Invert well before taking 4 mL aliquot. 4. Do not over fill aliquot tube, 4 mL at most.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 84156; 82570;

HPCOV
614020

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS CoV-2), Molecular Detection, Varies

Specimen Requirements: Preferred: Specimen Type: Nasopharyngeal swab Container/Tube: Sterile container with viral transport media Specimen Volume: Entire specimen with a minimum of 1.5 mL (maximum 3 mL) of transport media. Collection Instructions: 1. Collect specimen by swabbing back and forth over mucosa surface to maximize recovery of cells. 2. Swab must be placed into viral transport media (eg, M4-RT, M4 or M5), saline, or phosphate buffered saline (PBS). Media should not contain guanidine thiocyanate (GTC). Specimen Type: Bronchoalveolar lavage fluid Container/Tube: Sterile container Specimen Volume: 0.6 mL Additional Information: Do not aliquot into viral transport media. Acceptable: Specimen Type: Oropharyngeal (throat) swab, nasal mid-turbinate, or nares/nasal swab Supplies: -Culturette (BBL Culture Swab) (T092) -Swab, Sterile Polyester (T507) Collection Container/Tube: Preferred: BBL Culture Swab or COPAN Mid-turbinate Swab Acceptable: Dacron-tipped swab with plastic handle Submission Container/Tube: Swab in sterile container with transport media Specimen Volume: Entire specimen with a minimum of 1.5 mL (maximum 3 mL) of transport media. Collection Instructions: Swab must be placed into viral transport media (eg, M4-RT, M4, or M5), saline, or PBS. Media should not contain guanidine thiocyanate (GTC). Specimen Type: Bronchial washings, endotracheal aspirate, sputum Container/Tube: Sterile container Specimen Volume: 0.6 mL Additional Information: Do not aliquot into viral transport media.

Specimen Minimum Volume: Upper respiratory tract swab: See Specimen Required; lower respiratory specimens: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Frozen (preferred)	14 days
	Refrigerated	72 hours

CPT Code Information: 87635

CATTR
614034

Cold Agglutinin Titer, Serum

Specimen Requirements:

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	7 days
	Frozen	7 days
	Ambient	72 hours

CPT Code Information: 86157

12PU1
614042

Protein, Total, 12 Hour, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic, 5 mL tube Specimen Volume: 4 mL Collection Instructions: 1. Collect a 12-hour urine specimen. Specimens should be collected before fluorescein is given or not collected until at least 24 hour later. 2. No preservative. 3. Invert well before taking 4-mL aliquot. 4. Do not overfill aliquot tube, 4 mL at most. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 84156

URCU
614044

Uric Acid, 24 Hour, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: 24-Hour graduated urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 5 mL tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 5 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84560

RTRP2
614047

Tubular Reabsorption of Phosphorus, Random Urine and Serum

Specimen Requirements: Both serum and urine are required. Patient Preparation: Fasting: 12 hours, required Specimen Type: Serum Supplies: Sarstedt Aliquot Tube, 5 mL (T914 Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial. 2. Label specimen as serum. Specimen Type: Urine Container/Tube: Plastic, 5-mL tube Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. 3. Label specimen as urine.

Specimen Minimum Volume: Urine: 1 mL; Serum: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 82565; 82570; 84100; 84105;

UOSMS
614057

Osmolality, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	7 days
	Ambient	24 hours

CPT Code Information: 83930

CLU
614058

Chloride, 24 Hour, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: 24-Hour graduated urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 5 mL tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 4 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 82436

KUR
614060

Potassium, 24 Hour, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: 24-Hour graduated urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 5 mL tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 5 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-Hour collection. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84133

URCON
614061

Urea, Random, Urine

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic tube Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84540

BIVAL
614120

Bivalirudin, Ecarin, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	42 days

CPT Code Information: 80299

PTEN
614126

Phosphatase and Tensin Homolog (PTEN) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Preferred: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Acceptable: None

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CSTCE
614154

Cystatin C with Estimated Glomerular Filtration Rate (eGFR), Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 82610

BFLA1
614164

Lipid Analysis, Body Fluid

Specimen Requirements: Specimen Type: Body fluid Preferred Sources: -Peritoneal fluid (peritoneal, abdominal, ascites, paracentesis) -Pleural fluid (pleural, chest, thoracentesis) -Drain fluid (drainage, JP drain) -Pericardial Acceptable Source: Collection Container/Tube: Sterile container, no additive Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: 1.

Centrifuge to remove any cellular material and transfer into a plastic vial. 2. Indicate the specimen source and source location on label.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Frozen (preferred)	30 days
	Refrigerated	7 days
	Ambient	24 hours

CPT Code Information: 82664-Electrophoretic technique, not elsewhere specified (Chylomicrons and lipoproteins); 84311-Spectrophotometry, analyte not specified (Cholesterol); 84478-Triglycerides;

AMLMF
614202

Acute Myeloid Leukemia (AML), Specified FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88275x1, 88291x1- FISH Probe, Analysis, Interpretation; 1 probe set; 88271x2, 88275x1-FISH Probe, Analysis; each additional probe set (if appropriate);

BALMF
614215

B-Cell Acute Lymphoblastic Leukemia/Lymphoma (ALL), Specified FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or

lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x2, 88275 x1, 88291 x1- FISH Probe, Analysis, Interpretation; 1 probe sets; 88271 x2, 88275 x1 - FISH Probe, Analysis; each additional probe set (if appropriate); 88271 x1 -FISH Probe; coverage for sets containing 3 probes (if appropriate);

BLPMF
614227

B-Cell Lymphoma, Specified FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x 2, 88275, 88291-FISH Probe, Analysis, Interpretation; 1 probe set; 88271 x 2, 88275-FISH Probe, Analysis; each additional probe set (if appropriate);

EOSMF
614254

Chronic Eosinophilia, Specified FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2-3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x2, 88275 x1, 88291 x1-FISH Probe, Analysis, Interpretation; 1 probe sets; 88271 x2, 88275 x1-FISH Probe, Analysis; each additional probe set (if appropriate); 88271 x1-FISH Probe; coverage for sets containing 3 probes (if appropriate);

HEMMF
614265

Hematologic Specified FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2-3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Acceptable: Specimen Type: Whole Blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88275x1, 88291x1 - FISH Probe, Analysis, Interpretation; 1 probe set; 88271x2, 88275x1 - FISH Probe, Analysis; each additional probe set (if appropriate);

MDSDF
614276

Myelodysplastic Syndrome (MDS), Diagnostic FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x 12, 88275 x 6, 88291-FISH Probe, Analysis, Interpretation; 6 probe sets; 88271 x 2, 88275-FISH Probe, Analysis; each additional probe set (if appropriate);

MDSMF
614287

Myelodysplastic Syndrome (MDS), Specified FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow in original tube. Do not aliquot. Acceptable: Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

MFCDF
614298

Myeloma, High Risk with Reflex Probes, Diagnostic FISH Evaluation, Fixed Cell Pellet

Specimen Requirements: Container/Tube: Sterile container Specimen Volume: 1 Fixed cell pellet Collection Instructions: Place specimen in a sterile container with a 3:1 methanol:glacial acetic acid (or similar) fixative.

Transport Temperature:

Specimen Type	Temperature	Time
Fixed Cell Pellet Bone Marrow	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x6, 88275x3, 88291 x1-FISH Probe, Analysis, Interpretation; 3 probe sets; 88271x2, 88275x1-FISH Probe, Analysis; each additional probe set (if appropriate);

XCP
614318

Hereditary Expanded Cancer Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: Whole Blood1 mL; Saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81403; 81292; 81295; 81298; 81162; 81201; 81307; 81317; 81321; 81351; 81404 x 4; 81405 x 6; 81406 x 7; 81407 x2; 81408 x 2; 81479; 81479 (if appropriate for government payers);

COMCP
614319

Hereditary Common Cancer Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710 Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81201; 81408 x2; 81162; 81406 x4; 81404; 81403; 81405 x2; 81292; 81295; 81298; 81307; 81317; 81321; 81351; 81407; 81479; 81479 (if appropriate for government payers);

BRGYP
614320

Hereditary Breast/Gynecologic Cancer Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81432

TALMF
614323

T-Cell Acute Lymphoblastic Leukemia/Lymphoma (ALL), Specified FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88275x1, 88291x1-FISH Probe, Analysis, Interpretation; 1 probe set; 88271x2, 88275x1 - FISH Probe, Analysis; each additional probe set (if appropriate);

TLPMF
614346

T-Cell Lymphoma, Specified FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow in original tube. Do not aliquot. Acceptable Specimen Type: Whole Blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88275 x1, 88291x1- FISH Probe, Analysis, Interpretation; 1 probe set; 88271x2, 88275 x1 - FISH Probe, Analysis; each additional probe set (if appropriate);

OPTU
614360

Orthostatic Protein, Timed Collection, Urine

Specimen Requirements: Specimens should be collected before fluorescein is given or not collected until at least 24 hour later. Supplies: 2 Sarstedt 5 mL Aliquot Tube (T914) Daytime Collection Container/Tube: Plastic, 5-mL tube Specimen Volume: 4 mL Collection Instructions: 1. Collect a 16-hour (daytime) urine specimen. 2. No preservative. 3. Invert well before taking 4-mL aliquot. 4. Do not over fill aliquot tube 4 mL at most. 5. Collect specimen per instructions in Orthostatic Protein Measurement 24-Hour Urine: Collection Site Instructions (T546) in Special Instructions. Nighttime (Supine) Collection Container/Tube: Plastic, 5-mL tube Specimen Volume: 4 mL Collection Instructions: 1. Collect an 8-hour (nighttime) urine specimen. 2. No preservative. 3. Invert well before taking 4-mL aliquot at most.

Specimen Minimum Volume: 1 mL from 16-hour (daytime) urine collection/1 mL from 8-hour (nighttime) urine collection

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 84156 x 2

WGSDX
614363

Whole Genome Sequencing for Hereditary Disorders, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell transplant. Submit only 1 of the following specimens for each family member. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to

determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Muscle tissue biopsy Supplies: Muscle Biopsy Kit (T541) Specimen Volume: 20 to 80mg Collection Instructions: Prepare and transport specimen per instructions in Muscle Biopsy Specimen Preparation Instructions. Specimen Stability Information: Frozen (preferred) <24 hours/Ambient/Refrigerated <24 hours Additional Information: Specimens are preferred to be received within 24 hours of collection. Extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81425-Patient only; 81425, 81426-Patient and one family member comparator sample (duo) (as appropriate); 81425, 81426 x 2-Patient and two family member comparator samples (trio or non-traditional trio) (as appropriate); 81425, 81426 x 3-Patient and three family member comparator samples (quad) (as appropriate); 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

ATPCO
614402

Anal ThinPrep Cytology with Human Papillomavirus (HPV) Co-Test, Varies

Specimen Requirements: Submit one of the following specimens: Preferred Specimen Type: Anus or rectum Supplies: ThinPrep Media with Spatula and Brush Kit (T434) Collection Container/Tube: Brush Submission Container/Tube: ThinPrep Specimen Volume: A minimum of 20 mL or entire collection Collection Instructions: 1. Visualize the anal opening by retracting the buttocks. 2. Insert brush past internal anal sphincter until it abuts the distal rectal wall (4-5cm). 3. Rotate the brush 360 degrees and maintain lateral pressure on brush against the walls of the anus. The brush should bow slightly due to the pressure. 4. While rotating, slowly withdraw the brush. 5. Rotate at least 10 times while withdrawing the brush. This should take 20 to 30 seconds. 6. Immediately place brush in the ThinPrep solution and swish at least 20 to 30 seconds. 7. Dispose of the brush. 8. Tighten the cap so that the torque line on the cap passes the torque line on the vial. 9. Bag ThinPrep specimens individually as they tend to leak during transport. 10. Place labels on the vial and on the biohazard bag. Acceptable Specimen Type: Anus or rectum Supplies: PreservCyt Vial (T536) Collection Container/Tube: Dacron/polyester swab Submission Container/Tube: PreservCyt solution vial Specimen Volume: A minimum of 20 mL or entire collection Collection Instructions: 1. Visualize the anal opening by retracting the buttocks. 2. Insert Dacron or polyester swab past internal anal sphincter until it abuts the distal rectal wall (4-5cm). 3. Rotate the swab 360 degrees and maintain lateral pressure on swab against the walls of the anus. The swab should bow slightly due to the pressure. 4. While rotating, slowly withdraw the swab. 5. Rotate at least 10 times while withdrawing the swab. This should take 20 to 30 seconds. 6. Immediately place swab in the ThinPrep solution. Swish at least 20 to 30 seconds in the ThinPrep solution. 7. Dispose of the swab. 8. Tighten the cap so that the torque line on the cap passes the torque line on the vial. 9. Bag ThinPrep specimens individually as they tend to leak during transport. 10. Place labels on the vial and on the biohazard bag.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient	21 days	THIN PREP

CPT Code Information: 88112; 87626;

HSTNI
614422

Troponin I, High Sensitivity, Plasma

Specimen Requirements: Collection Container/Tube: Preferred: Mint green top (lithium heparin gel) Acceptable: Green top (lithium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Plasma gel tube should be centrifuged within 2 hours of collection. 2. Green-top tube should be centrifuged, and the plasma aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	180 days
	Refrigerated	48 hours
	Ambient	4 hours

CPT Code Information: 84484

CRE2
614427

Creatinine, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -ALBR / Albumin, Random, Urine -RALB / Albumin, Random, Urine. Supplies: Sarstedt 5 mL Aliquot Tube (T914) Container/Tube: Plastic tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	30 days
	Ambient	30 days
	Frozen	30 days

CPT Code Information: 82570

AATTF
614506

Antithrombin Activity, with Reflex to Antithrombin Antigen, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information:

EXT2
614548

Exostosin 2 (EXT2) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

NIUCR
614552

Nickel/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 2.55 mL Collection Instructions: 1. Collect a random urine specimen 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 1.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 83885; 82570;

NIUC
614553

Nickel/Creatinine Ratio, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see NIUCR / Nickel/Creatinine Ratio, Random, Urine. Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 2.55 mL Collection Instructions: 1. Collect a random urine specimen 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 1.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

JLYMF
614564

B-Cell Lymphoma, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tumor tissue block. Blocks prepared with alternative fixation methods will not be accepted; provide fixation method used. Additional Information: Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). Acceptable Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained slide and 1 unstained slide for each probe set plus an additional unstained slide. Collection Instructions: 1. Include 1 hematoxylin and eosin-stained slide for the entire test order. 2. For each probe set ordered, submit 1 consecutive, unstained, 4 to 5 micron-thick sections placed on positively charged slides, plus 1 additional unstained slide.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained slide and 1 unstained slide for each probe set

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88377 (if 1 probe set); 88377 x 2 (if 2 probe sets); 88377 x 3 (if 3 probe sets); 88377 x 4 (if 4 probe sets);

PBKQN
614567

BK Virus DNA Detection and Quantification, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Plasma Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 87799

UBKQN
614568

BK Virus DNA Detection and Quantification, Random, Urine

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Urine	Refrigerated (preferred)	84 days	COBAS PCR URINE
	Ambient	84 days	COBAS PCR URINE

CPT Code Information: 87799

HBOCZ
614570

BRCA1/BRCA2 Genes, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for samples received after 4 days and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: Whole blood: 1 mL; Saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81162

CRCGP
614571

Hereditary Gastrointestinal Cancer Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA

requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81435

LYNCP
614572

Lynch Syndrome Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for samples received after 4 days and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen

Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: Whole blood: 1 mL; Saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81435

HFET
614573

Hereditary Hemochromatosis, HFE Variant Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogeneic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with

Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81256-HFE (hemochromatosis) (eg, hereditary hemochromatosis) gene analysis, common variants (C282Y and H63D)

PANCP
614574

Hereditary Pancreatic Cancer Panel, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81432

RENCP
614575

Hereditary Renal Cancer Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen

Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: Whole blood: 1 mL; Saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405 x 3; 81321; 81406 x 2; 81404 x 2; 81351; 81407; 81479; 81479 (if appropriate for government payers);

PRS8P
614576

Hereditary Prostate Cancer Panel, Varies

Specimen Requirements:

Specimen Minimum Volume: Whole blood: 1 mL; Saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81432

WILMP
614577

Hereditary Wilms Tumor Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days /Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing

may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800 Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 Flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a biopsy Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro

Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 Flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL Tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 Flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Whole blood: 1 mL; Saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81351; 81405; 81479; 81479 (if appropriate for government payers);

ENDCP
614578

Hereditary Endocrine Cancer Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for samples received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: Whole blood: 1 mL; Saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81437

HPGLP
614579

Hereditary Paraganglioma/Pheochromocytoma Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert

several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Send: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a tissue biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1

year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81437

THYRP
614580

Hereditary Thyroid Cancer Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for samples received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: Whole blood: 1 mL; Saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81437

BAP1Z
614581

BAP1-Tumor Predisposition Syndrome, BAP1 Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen

Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: Whole blood: 1 mL; Saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

CDHZ
614582

Hereditary Diffuse Gastric Cancer Syndrome, CDH1, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on

the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen

Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406

LRCCZ
614583

Hereditary Leiomyomatosis and Renal Cell Cancer Syndrome, FH, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted.

Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information : Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800 Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 Flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene

regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 Flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 Flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405

BHDZ
614584

Birt-Hogg-Dube Syndrome, FLCN, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for samples received after 4 days and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: Whole blood: 1 mL; Saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

NF1Z
614585

Neurofibromatosis Type 1, NF1, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection.

Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred

to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81408; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 88235-Amniotic fluid culture (if appropriate); 81265-Maternal cell contamination (if appropriate);

PTNZ
614586

PTEN Hamartoma Tumor Syndrome, PTEN Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen

Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81321

RETZZ
614587

Multiple Endocrine Neoplasia Type 2 Syndrome, RET, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in

original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for samples received after 4 days and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: Whole blood: 1 mL; Saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406

STK1Z
614588

Peutz-Jeghers Syndrome, STK11, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for samples received after 4 days and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: Whole Blood 1 mL; Saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405

VHLZZ
614589

Von Hippel Lindau Syndrome, VHL, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for samples received after 4 days and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: Whole blood: 1 mL; Saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81404

NF4FS
614591

Neurofascin-155 IgG4, Flow Cytometry, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -CIDP / Chronic Inflammatory Demyelinating Polyradiculoneuropathy/Nodopathy Evaluation, Serum -DMNES / Peripheral Nervous System Demyelinating Neuropathy, Autoimmune Evaluation, Serum

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

HIBSG
614598

Haemophilus influenzae Type B Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 86684

SPPS
614599

Stiff-Person Spectrum Disorders Evaluation, including Progressive Encephalomyelitis with Rigidity and Myoclonus, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 2; 86341; 0431U; 84182 (if appropriate); 86256 (if appropriate); 86256 (if appropriate);

SPPC 614600 Stiff-Person Spectrum Disorders Evaluation, including Progressive Encephalomyelitis with Rigidity and Myoclonus, Spinal Fluid

Specimen Requirements:

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 2; 86341; 0431U; 84182 (if appropriate) 86256 (if appropriate); 86256 (if appropriate);

SPPSI 614601 Stiff-Person Spectrum Disorders, including Progressive Encephalomyelitis with Rigidity and Myoclonus, Interpretation, Serum

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

SPPCI
614602

Stiff-Person Spectrum Disorders including Progressive Encephalomyelitis with Rigidity and Myoclonus, Interpretation, Spinal Fluid

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

2HGA
614603

2-Hydroxyglutaric Acid Chiral Analysis, Quantitative, Random, Urine

Specimen Requirements: Supplies: Urine Tube, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 10 mL Pediatric: If the collection volume appears insufficient, submit as much specimen as possible in a single container; the laboratory will determine if volume is sufficient for test. Collection Instructions: 1. Collect a random urine specimen (first morning void preferred) 2. No preservative

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	416 days
	Ambient	14 days
	Refrigerated	14 days

CPT Code Information: 83921 x 2

CMPRG
614611

Family Member Comparator Specimen for Genome Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell transplant. Submit only 1 of the following specimens for each family member. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not

aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Muscle tissue biopsy Supplies: Muscle Biopsy Kit (T541) Specimen Volume: 20 to 80 mg Collection Instructions: Prepare and transport specimen per instructions in Muscle Biopsy Specimen Preparation Instructions. Specimen Stability Information: Frozen (preferred) <24 hours/Ambient <24 hours/Refrigerated <24 hours Additional Information: Specimens are preferred to be received within 24 hours of collection. Extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory, or equivalent, and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

TIWB
614612

Titanium, Blood

Specimen Requirements: ***This specimen container cannot be opened or used for any other testing before shipping.*** Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free EDTA 3 mL Tube (T989) -Metal Free B-D Tube (EDTA), 6 mL (T183) Collection Container/Tube: Preferred: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (BD catalog no. 367777) Acceptable: Royal blue-top BD Vacutainer Plus with EDTA blood collection tube (6 mL) (BD catalog no. 368381) Specimen Volume: 0.55 mL Collection Instructions: 1. See Metals Analysis Specimen Collection and Transport for complete instructions. 2. Send whole blood specimen in original collection tube. Do not aliquot.

Specimen Minimum Volume: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83018

WGSR
614664

Whole Genome Sequencing Reanalysis, Varies

Specimen Requirements: For most patients, a new specimen submission will not be required. Testing can be performed using stored DNA from the original whole genome sequencing test. To order testing on the stored specimen, see Additional Testing Requirements. Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell transplant. Submit only 1 of the following specimens for each family member. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA

requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 Flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Muscle tissue biopsy Supplies: Muscle Biopsy Kit (T541) Specimen Volume: 20 to 80 mg Collection Instructions: Prepare and transport specimen per instructions in Muscle Biopsy Specimen Preparation Instructions. Specimen Stability Information: Frozen (preferred) <24 hours/Ambient/Refrigerated <24 hours Additional Information: Specimens are preferred to be received within 24 hours of collection. Extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: Whole blood: 1 mL; Other specimen types: See Specimen Required

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: First reanalysis: No charge; 81427-For all subsequent reanalysis requests;

EGFRS
614665

EGFR Gene, Targeted Mutation Analysis, 51 Mutation Panel, Tumor

Specimen Requirements: Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded (FFPE) tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Source: FFPE tissue, cell block (prepared from fine-needle aspirate, or pleural fluid) Slides: 1 Hematoxylin and eosin-stained and 5 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 5 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears; smears stained with Pap stain are not acceptable) Slides: 2 Slides Collection Instructions: Submit 2 slides stained with Diff Quik and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Formalin-fixed, paraffin-embedded tissue block or Slides: see Specimen Required Cytology smear stained with Diff Quik: >1000 cells

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81235-EGFR (epidermal growth factor receptor) (eg, non-small cell lung cancer) gene analysis, common variants (eg, exon 19 LREA deletion, L858R, T790M, G719A, G719S, L861Q); 88381-Microdissection, manual;

SORBU
614934

Sorbitol and Mannitol, Quantitative, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 2 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 82542

MCLBP
614939

MayoComplete Liquid Biopsy Panel, Next-Generation Sequencing, Cell-Free DNA

Specimen Requirements: Supplies: Streck Black/Tan Top Tube Kit (T715) Container/Tube: Streck Cell-Free DNA (cfDNA) blood collection kit Specimen Volume: Two 10-mL Streck Cell-Free DNA blood collection tubes Additional Information: Only blood collected in Streck Cell-Free DNA BCT tubes will be accepted for analysis. Whole blood will be processed to produce platelet-poor plasma before cfDNA isolation.

Specimen Minimum Volume: One 10-mL Streck tube

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	7 days	Streck Black/Tan top
	Refrigerated	7 days	Streck Black/Tan top

CPT Code Information: 81463

MBLF
614985

Mannan Binding Lectin Complement Pathway, Functional, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen	14 days

CPT Code Information: 86161

MNRCU
614993

Manganese/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 82570; 83785;

MNCU
614994

Manganese/Creatinine Ratio, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see MNRCU / Manganese/Creatinine Ratio, Random, Urine. Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 83785

JGLIF
615002

1p/19q Glioma Deletions, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Tissue block Collection Instructions: 1. Submit a formalin-fixed, paraffin-embedded tumor tissue block. 2. Provide fixation method used. Additional Information: Blocks prepared with alternative fixation methods will not be accepted. Acceptable Specimen Type: Tissue slides Slides: 1 hematoxylin and eosin-stained and 3 unstained Collection Instructions: 1. Submit 1 slide stained with hematoxylin and eosin and 3 consecutive, unstained, positively charged, unbaked, slides with 4 to 5 micron-thick sections of the tumor tissue. 2. Provide fixation method used. Additional Information: Slides cut from blocks prepared with alternative fixation methods will not be accepted.

Specimen Minimum Volume: Tissue slides: 2 consecutive unstained and 1 hematoxylin and eosin stained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88377 x 2 (2 probe sets)

CHAGS
615244

Trypanosoma cruzi Total Antibody, Enzyme-Linked Immunosorbent Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see CRUZI / Trypanosoma cruzi (Chagas) Antibody Panel, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86753

RO52
615246

Ro52 Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	21 days

CPT Code Information: 86235

RO60
615247

Ro60 Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	21 days

CPT Code Information: 86235

ROPAN
615248

Ro52 and Ro60 Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	21 days

CPT Code Information: 86235 x 2

AFH
615249

Factor H Autoantibody, Serum

Specimen Requirements:

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen (preferred)	28 days
	Refrigerated	28 days
	Ambient	14 days

CPT Code Information: 83520

TLUCR
615255

Thallium/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to interfere with most metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 7 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 1.3mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 83018; 82570;

CURCU
615257

Copper/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of barium are known to interfere with this test. If barium-containing contrast media has been administered, the specimen should not be collected for at least 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 82525; 82570;

CURC
615258

Copper/Creatinine Ratio, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see CURCU / Copper/Creatinine Ratio, Random, Urine. Patient Preparation: High concentrations of barium are known to interfere with most metal tests. If barium-containing contrast media has been administered, the specimen should not be collected for at least 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container with no metal cap or glued insert Submission Container/Tube: Plastic, 10-mL urine tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 82525

ZNUCR
615259

Zinc/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of barium are known to interfere with this test. If barium-containing contrast media has been administered, the specimen should not be collected for at least 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container with no metal cap or glued insert Submission Container/Tube: Plastic urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 84630; 82570;

ZNCU
615260

Zinc/Creatinine Ratio, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see ZNUCR / Zinc/Creatinine Ratio, Random, Urine. Patient Preparation: High concentrations of barium are known to interfere with most metal tests. If barium-containing contrast media has been administered, the specimen should not be collected for at least 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container with no metal cap or glued insert Submission Container/Tube: Plastic urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 84630

HEG1
615261

HEG1 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Acceptable: None Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

CHBVS
615268

Chronic Hepatitis B Screen, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.2 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes).

Specimen Minimum Volume: Serum: 0.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 87340; G0499-(if appropriate); 87350 (if appropriate); 87341 (if appropriate); 86707 (if appropriate);

HBPES
615271

Hepatitis B Virus Past Exposure Panel, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.2 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: 0.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86706; 86704; 87340; 87341 (if appropriate); G0499 (if appropriate);

LDPU
615289

Limited Drug Profile, 3 Drug Classes, Immunoassay, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see CSMHU / Controlled Substance Monitoring Hybrid Drug Profile, 20 Drug Classes, High-Resolution Mass Spectrometry and Immunoassay Screen, Random, Urine. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 10 mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. Submit 5 mL in 10 plastic tube. 3. No preservative

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 80307

CSMTU
615292

Controlled Substance Monitoring Targeted Profile, 17 Drug Classes, Mass Spectrometry, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 10 mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. Submit 5 mL in 1 plastic bottle. 3. No preservative Additional Information: 1. No specimen substitutions. 2. Submitting less than 5 mL may compromise the ability to perform all necessary testing. 3. STAT requests are not accepted for this test.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: G0482; 80347 (if appropriate for select payers); 80364 (if appropriate for select payers); 80326 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

CSMHU
615293

Controlled Substance Monitoring Hybrid Drug Profile, 20 Drug Classes, High-Resolution Mass Spectrometry and Immunoassay Screen, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 10 mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. Submit 5 mL in 1 plastic bottle. 3. No preservative Additional Information: 1. No specimen substitutions. 2. Submitting less than 5 mL may compromise the ability to perform all necessary testing. 3. STAT requests are not accepted for this test.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 80307; G0482; 80347 (if appropriate for select payers); 80364 (if appropriate for select payers); 80326 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

EBVQN
615297

Epstein-Barr Virus DNA Detection and Quantification, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Plasma Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 87799

MSCG
615298

Collagenofibrotic Glomerulopathy Confirmation, Mass Spectrometry

Specimen Requirements: Supplies: Pathology Packaging Kit (T554) Specimen Type: Formalin-fixed, paraffin-embedded kidney tissue block Collection Instructions: Do not send fixed tissue slides. Testing can only be done on paraffin-embedded tissue blocks.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 82542; 88380;

MSFNG
615305

Fibronectin Glomerulopathy Confirmation, Mass Spectrometry

Specimen Requirements: Supplies: Pathology Packaging Kit (T554) Specimen Type: Formalin-fixed, paraffin-embedded kidney tissue block Collection Instructions: Do not send fixed tissue slides. Testing can only be done on paraffin-embedded tissue blocks.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 82542; 88380;

GDUCR
615338

Gadolinium/Creatinine Ratio, Random, Urine

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours.. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 5.35 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 1.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 83018; 82570;

GDCU
615339

Gadolinium/Creatinine Ratio, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see GDUCR / Gadolinium/Creatinine Ratio, Random, Urine. Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Clean, plastic urine collection container Submission Container/Tube: Plastic, 10-mL urine tube or clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 5.35 mL Collection Instructions: 1. Collect a random urine specimen. 2. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 1.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 83018

ALKLC
615713

Anaplastic Lymphoma Kinase for Lung Cancer, Immunohistochemistry

Specimen Requirements: Specimen Type: Tissue Supplies: Pathology Packaging Kit (T554) Submit: Formalin-fixed, paraffin-embedded tissue block OR 3 Unstained glass, "positively charged" slides with 4-microns formalin-fixed, paraffin-embedded tissue Additional Information: 1. One slide will be stained with hematoxylin and eosin and returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-Primary; 88341-If additional IHC;

PRAME
615794

PRAME Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

CRCL
615813

Creatinine Clearance, Serum and 24-Hour Urine

Specimen Requirements: Both serum and urine are required. Serum must be collected no earlier than 72 hours before start of urine collection and no later than 72 hours after urine collection is completed. Specimen Type: Serum Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge and aliquot serum into plastic vial. 2. Label specimen as serum. Specimen Type: Urine Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Specimen Volume: 5 mL Collection Instructions: 1. Collect urine for 24 hours. 2. Refrigerate specimen within 4 hours of completion of 24-hour collection. 3. Label specimen as urine. Additional Information: For multiple collections see Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens

Specimen Minimum Volume: Serum: 0.5 mL Urine: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	
	Frozen	
Urine	Refrigerated (preferred)	
	Ambient	
	Frozen	

CPT Code Information: 82575

HIP12
615815

HIV-1/HIV-2 RNA Detection, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Plasma Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into plastic vial.

Specimen Minimum Volume: Plasma: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	40 days
	Refrigerated	6 days

CPT Code Information: 87535; 87538;

HIS12
615816

HIV-1/HIV-2 RNA Detection, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial

Specimen Minimum Volume: Serum: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	40 days
	Refrigerated	6 days

CPT Code Information: 87535; 87538;

HPP12
615817

HIV-1/HIV-2 RNA Detection Prenatal, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Plasma Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	40 days
	Refrigerated	6 days

CPT Code Information: 87535; 87538;

HPS12
615818

HIV-1/HIV-2 RNA Detection Prenatal, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	40 days
	Refrigerated	6 days

CPT Code Information: 87535; 87538;

IDHQ
615859

IDH1 (R132) and IDH2 (R140 and R172) Quantitative Detection, Droplet Digital PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD-B) or green top (heparin) Specimen Volume: 4mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD-B) or green top (heparin) Specimen Volume: 2mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Type: Extracted DNA from blood or bone marrow Container/Tube: 1.5- to 2-mL tube with indication of volume and concentration of DNA Specimen Volume: Entire specimen Collection Instructions: 1. Label specimen as extracted DNA and source of specimen 2. Indicate volume and concentration of DNA on label. The required volume of DNA is at least 50 mcL at a concentration of 50 ng/mcL Specimen Stability: Frozen (preferred)/Refrigerated

Specimen Minimum Volume: Whole blood: 4mL; Bone marrow: 2mL; Extracted DNA: 50 mcL at 50 ng/mcL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	14 days
	Ambient	7 days

CPT Code Information: 81120; 81121;

APBCC
615860

Adaptor Protein 3 Beta2 (AP3B2) Antibody, Cell-Binding Assay, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a part of a profile or reflex. For more information see: -MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune /Paraneoplastic Evaluation, Spinal Fluid

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

APBCS
615861

Adaptor Protein 3 Beta2 (AP3B2) Antibody, Cell-Binding Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -AIAES / Axonal Neuropathy, Autoimmune/Paraneoplastic Evaluation, Serum -DYS2 / Dysautonomia, Autoimmune/Paraneoplastic Evaluation, Serum -GID2 / Gastrointestinal Dysmotility, Autoimmune/Paraneoplastic Evaluation, Serum -MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

NCDCC
615864

Neurochondrin Antibody, Cell-Binding Assay, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -PCDEC / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Spinal Fluid Container/Tube: Sterile vial Specimen Volume: 1.5 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

NCDCS 615865 Neurochondrin Antibody, Cell-Binding Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum -MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum -PCDES / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Serum

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

SP5CC 615868 Septin-5 Antibody, Cell-Binding Assay, Spinal Fluid (Non-

Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid. Container/Tube: Sterile vial Specimen Volume: 1.5 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

SP5CS
615869

Septin-5 Antibody, Cell Binding Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum. Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

SP7CC
615872

Septin-7 Antibody, Cell-Binding Assay, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -ENC2 / Encephalopathy, Autoimmune /Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune /Paraneoplastic Evaluation, Spinal Fluid -MAC1 / Myelopathy, Autoimmune/Paraneoplastic

Evaluation, Spinal Fluid Container/Tube: Sterile vial Specimen Volume: 1.5 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

SP7CS
615873

Septin-7 Antibody, Cell-Binding Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum -MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

PBNP1
615897

NT-Pro B-Type Natriuretic Peptide, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For red-top tubes, aliquot the serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	365 days
	Refrigerated	7 days

CPT Code Information: 83880

AMYR
615903

Beta-Amyloid Ratio (1-42/1-40), Spinal Fluid

Specimen Requirements: Container/Tube: Preferred: Sarstedt 1.5 mL tube (Ref. 72.703.600), Collect at least 750 mcL of cerebrospinal fluid (CSF) or (> or =50% full). Acceptable: -CSF AD Biomarker Tube (T833; Sarstedt CSF False Bottom Tube 63.614.625 [2.5 mL]) -Sarstedt 72.694.600 (2 mL) -Sarstedt 10 mL tube Ref. 62.610.018 (Collect at least 5 mL of CSF [> or =50% full]) All tubes should be filled to between 50% to 100% of the total empty container volume. Specimen Volume: 0.75 to1.5 mL or at least 50% container volume Collection Instructions: 1. This test is intended for use in adult patients aged 55 years and older. Do not collect CSF for this test if the patient is younger than 55 years. 2. Perform lumbar puncture and discard the first 1 to 2 mL of CSF. Note: CSF collection should be performed by the gravity drip method. 3. Discard any CSF visibly contaminated with blood. 4. Collect CSF directly into one of the listed collection tubes until the tube is at least 50% full. Specimens received with less than the required fill volume may be rejected. 5. If transporting frozen, freeze sample upright prior to placing in transport container. 6. If transporting refrigerate, tubes should be transported upright. Note: Polystyrene collection tubes are not acceptable. Exposure of CSF to polystyrene tubes may result in falsely low beta-amyloid concentrations. For more information see Cautions. 7. Collection instructions can also be found on Spinal Fluid Specimen Collection Instructions for B-Amyloid (1-42/1-40) (T979)

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	90 days
	Refrigerated	14 days
	Ambient	48 hours

CPT Code Information: 0358U

T821Q
615905

RUNX1::RUNX1T1 Translocation (8;21), Minimal Residual Disease Monitoring, Quantitative, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Blood Container/Tube: Lavender top (EDTA) or yellow top (ACD-B) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Type: Bone marrow aspirate Container/Tube: Lavender

top (EDTA) or yellow top (ACD-B) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: Peripheral blood: 8 mL; Bone marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	5 days
	Ambient	72 hours

CPT Code Information: 81401

CSMEU
615907

Controlled Substance Monitoring Enhanced Profile with Reflex, 21 Drug Classes, High Resolution Mass Spectrometry and Immunoassay Screen, Random, Urine

Specimen Requirements: Supplies: Urine Container, 60 mL (T313) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 60-mL urine container Specimen Volume: 30 mL Collection Instructions: 1. Collect a random urine specimen. 2. Submit 30 mL in 1 plastic bottle. 3. No preservative. Additional Information: 1. No specimen substitutions. 2. Submitting less than 30 mL may compromise the ability to perform all necessary testing. 3. STAT requests are not accepted for this test.

Specimen Minimum Volume: 20 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 80307; G0482; 80347 (if appropriate for select payers); 80364 (if appropriate for select payers); 80326 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

ADMPU
615908

Addiction Medicine Profile with Reflex, 22 Drug Classes, High Resolution Mass Spectrometry and Immunoassay Screen, Random, Urine

Specimen Requirements: Supplies: Urine Container, 60 mL (T313) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 60-mL urine container Specimen Volume: 30 mL Collection Instructions: 1. Collect a random urine specimen. 2. Submit 30 mL in 1 plastic bottle. 3. No preservative. Additional Information: 1. No specimen substitutions. 2. Submitting less than 30 mL may compromise the ability to perform all necessary testing. 3. STAT requests are not accepted for this test.

Specimen Minimum Volume: 20 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 80307; G0482 (appropriate to use when 0-3 reflexes are required); G0483 (appropriate to use when 4 reflexes are required); ; 80347 (if appropriate for select payers); 80364 (if appropriate for select payers); 80326 (if appropriate for select payers); 80323 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

MSMRD 616030 Myeloma Stratification and Risk-Adapted Therapy with Reflex to Measurable/Minimal Residual Disease, Bone Marrow

Specimen Requirements: Specimen Type: Redirected bone marrow Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) Specimen Volume: 4 mL

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	72 hours
	Refrigerated	72 hours

CPT Code Information: 88182-Flow cytometry, cell cycle or DNA analysis; 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker; 88185 x 5-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each); 88187-Flow cytometry interpretation, 2 to 8 Markers;

MRDMR 616031 Multiple Myeloma Measurable Residual Disease (MRD) by Flow Cytometry, Bone Marrow (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see MSMRD /

Myeloma Stratification and Risk-Adapted Therapy with Reflex to Minimal Residual Disease, Bone Marrow Specimen Type: Redirected bone marrow Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	72 hours
	Refrigerated	72 hours

CPT Code Information: 88184-Flow Cytometry; first cell surface, cytoplasmic or nuclear marker; 88185 x 9-Flow Cytometry; additional cell surface, cytoplasmic or nuclear marker; 88188-Flow Cytometry Interpretation, 9 to 15 Markers;

ETGSR
616033

Ethyl Glucuronide Screen with Reflex, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see: -ADMPU / Addiction Medicine Profile with Reflex, 22 Drug Classes, High Resolution Mass Spectrometry and Immunoassay Screen, Random, Urine -CSMEU / Controlled Substance Monitoring Enhanced Profile with Reflex, 21 Drug Classes, High Resolution Mass Spectrometry and Immunoassay Screen, Random, Urine Container/Tube: Plastic, 60-mL urine bottle Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80307

HIVDR
616052

HIV-1 Genotypic Drug Resistance to Reverse Transcriptase, Protease, and Integrase Inhibitors, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection

Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 2.2 mL Collection Instructions: 1. Centrifuge blood collection tube and aliquot plasma into plastic vial per collection tube manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Freeze aliquoted plasma for shipment. Additional Information: Specimens submitted for HIV-1 genotyping must contain 1000 copies/mL or more of HIV-1 RNA.

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	60 days
	Refrigerated	7 days

CPT Code Information: 0219U

JMDMF 616053 MDM2 (12q15) Amplification, Well-Differentiated Liposarcoma/Atypical Lipomatous Tumor, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tumor tissue block. Blocks prepared with alternative fixation methods are not accepted; provide fixation method used. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 2 unstained Collection Instructions: Submit 1 slide stained with hematoxylin and eosin and 2 consecutive, unstained, positively charged, unbaked slides with 4 to 5-micron-thick sections of the tumor tissue.

Specimen Minimum Volume: Slides: 1 hematoxylin and eosin-stained and 1 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88377

WESDX 616068 Whole Exome Sequencing for Hereditary Disorders, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD)

Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred)/ 4 days Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The

preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81415-Patient only; 81415, 81416-Patient and one family member comparator sample (duo) (as appropriate); 81415, 81416 x 2-Patient and two family member comparator samples (trio or non-traditional trio) (as appropriate); 81415, 81416 x 3-Patient and three family member comparator samples (quad) (as appropriate);

CMPRE
616069

Family Member Comparator Specimen for Exome Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred:

Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

WESR
616070

Whole Exome Sequencing Reanalysis, Varies

Specimen Requirements: For most patients, a new specimen submission will not be required. Testing can be performed using stored DNA from the original whole exome sequencing test. To order testing on the stored specimen, see Additional Testing Requirements. Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Refrigerated (preferred)/Ambient Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred)/Refrigerated (<24 hours) Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filtration Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 (formerly Ahlstrom 226) filter paper or blood spot collection card Specimen Volume: 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect Dried Blood Spot Samples. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 2. For collection instructions, see Blood Spot Collection Instructions 3. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 4. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: The first reanalysis: No charge; For all subsequent reanalysis requests: 81417;

CTPCO
616073

ThinPrep with Human Papillomavirus (HPV) Co-Test-Screen with p16/Ki67 Dual Stain Reflex, Varies

Specimen Requirements: Patient Preparation: For optimal interpretation, Papanicolaou (Pap) smears should be collected near the middle of the menstrual cycle. No douching, lubricant use, or sexual intercourse for 24 hours before specimen collection. Only 1 aliquot may be removed from PreservCyt sample vial prior to performing the ThinPrep Pap test, regardless of the volume of the aliquot (maximum aliquot volume: 4 mL). Submit only 1 of the following specimens: Specimen Type: Cervical Supplies: Thin Prep Media with Broom Kit (T056) Container/Tube: ThinPrep/PreservCyt vial Specimen Volume: 16 mL Collection Instructions: 1. Obtain adequate sampling from cervix using a broom-like collection device. If desired, use lukewarm water to warm and lubricate the speculum. Insert the central bristles of the broom into the endocervical canal deep enough to allow the shorter bristles to fully contact the ectocervix. Push gently and rotate the broom in a clockwise direction 5 times. 2. Rinse the broom as quickly as possible into the PreservCyt solution vial by pushing broom into bottom of vial 10 times, forcing the bristles apart. 3. As a final step, swirl broom vigorously to further release material. Discard the broom collection device. 4. Tighten cap on vial so that the torque line on the cap passes the torque line on the vial. 5. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 6. Bag ThinPrep specimens individually as they tend to leak during transport. 7. Place labels on the vial and on the bag. Specimen Type: Ectocervix and endocervix Supplies: Thin Prep Media with Spatula and Brush Kit (T434) Container/Tube: ThinPrep/PreservCyt vial Specimen Volume: 16 mL Collection Instructions: 1. Obtain an adequate sampling from the ectocervix using a plastic spatula. If desired, use lukewarm water to warm and lubricate the speculum. Select contoured end of plastic spatula and rotate it 360 degrees around the entire ectocervix while maintaining tight contact with ectocervical surface. 2. Rinse spatula as quickly as possible into the PreservCyt solution vial by swirling spatula vigorously in vial 10 times. Discard the spatula. 3. Next, obtain an adequate specimen from endocervix using an endocervical brush device. Insert the brush into the cervix until only the bottommost fibers are exposed. Slowly rotate one-quarter or one-half turn in 1 direction. Do not over-rotate. 4. Rinse the brush as quickly as possible in the PreservCyt solution by rotating the device in the solution 10 times while pushing against the PreservCyt vial wall. 5. Swirl brush vigorously as final step to further release material. Discard the brush. 6. Tighten the cap so that the torque line on the cap passes the torque line on the vial. 7. Specimen vial must be labeled with a minimum of 2 unique identifiers (patient's name and medical record number or date of birth). 8. Bag ThinPrep specimens individually as they tend to leak during transport. 9. Place labels on the vial and bag.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	42 days	THIN PREP
	Refrigerated	42 days	THIN PREP

CPT Code Information: 88142; G0123 (Government payers); G0124 (Government payers, if appropriate); 88141 -TPSPC (if appropriate); 88344 -CINTC/CINPC (if appropriate);

HIAAR
616090

5-Hydroxyindoleacetic Acid, Random, Urine

Specimen Requirements: Patient Preparation: 1. Some medications could interfere with test results. If medically feasible, for 48 hours before specimen collection, patient should not take the following medications: -Acetaminophen (Tylenol or generic versions) -Tryptophan containing supplements 2. For 48 hours prior to the urine collection, the patient should limit the following to one serving per day: -Fruits -Vegetables -Nuts -Caffeinated beverages or foods Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. Store and send refrigerate

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	56 days
	Frozen	365 days

CPT Code Information: 83497

DOGPF
616091

Dog Dander, IgE, with Reflex to Dog Dander Components, IgE, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CATPF
616093

Cat Epithelium, IgE, with Reflex to Cat Epithelium Components, IgE, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial

Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

HRSPF 616095 Horse Dander, IgE with Reflex to Horse Dander Component, IgE, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

POWV 616098 Powassan Virus, IgM, Enzyme-Linked Immunosorbent Assay, Serum

Specimen Requirements: Supplies: Sarstedt 5 mL Aliquot Tube (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days

CPT Code Information: 86790

APBTS
616109

Adaptor Protein 3 Beta2 (AP3B2) Antibody, Tissue Immunofluorescence Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -AIAES / Axonal Neuropathy, Autoimmune/Paraneoplastic Evaluation, Serum -DYS2 / Dysautonomia, Autoimmune/Paraneoplastic Evaluation, Serum -GID2 / Gastrointestinal Dysmotility, Autoimmune/Paraneoplastic Evaluation, Serum -MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

APBTC
616110

Adaptor Protein 3 Beta2 (AP3B2) Antibody, Tissue Immunofluorescence Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid Container/Tube: Sterile vial Preferred: Vial number 1 Acceptable: Any vial Specimen Volume: 1.5 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

NCDTS
616111

Neurochondrin Antibody, Tissue Immunofluorescence Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum -MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum -PCDES / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Serum

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

NCDTC
616112

Neurochondrin Antibody, Tissue Immunofluorescence Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -PCDEC / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Spinal Fluid Container/Tube: Sterile vial Specimen Volume: 1.5 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

SP5TS
616113

Septin-5 Antibody, Tissue Immunofluorescence Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum. Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

SP5TC
616114

Septin-5 Antibody, Tissue Immunofluorescence, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid. Container/Tube: Sterile vial Specimen Volume: 1.5 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

SP7TS
616115

Septin-7 Antibody, Tissue Immunofluorescence Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum -MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

SP7TC
616116

Septin-7 Antibody, Tissue Immunofluorescence Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -ENC2 / Encephalopathy, Autoimmune /Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune /Paraneoplastic Evaluation, Spinal Fluid -MAC1 / Autoimmune Myelopathy /Paraneoplastic Evaluation, Spinal Fluid Container/Tube: Sterile vial Specimen Volume: 1.5 mL

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

CUS1
616155

Copper, Serum

Specimen Requirements: Patient Preparation: High concentrations of gadolinium, iodine, and barium are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium-, iodine-, and barium containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Metal Free Specimen Vial (T173) -Metal Free B-D Tube (No Additive), 6 mL (T184) Collection Container/Tube: 6-mL Plain, royal blue-top Vacutainer plastic trace element blood collection tube Submission Container/Tube: 7-mL Metal-free, screw-capped, polypropylene vial Specimen Volume: 0.8 mL serum Collection Instructions: 1. Allow the specimen to clot for 30 minutes; then centrifuge the specimen to separate serum from the cellular fraction. 2. Remove the stopper. Carefully pour specimen into metal-free, polypropylene vial, avoiding transfer of the cellular components of blood. Do not insert a pipet into the serum to accomplish transfer, and do not ream the specimen with a wooden stick to assist with serum transfer. 3. See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: Serum: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	28 days	METAL FREE
	Ambient	28 days	METAL FREE
	Frozen	28 days	METAL FREE

CPT Code Information: 82525

SUP24
616180

Supersaturation Profile, 24 Hour, Urine

Specimen Requirements: Patient Preparation: X-ray dyes and contrast media will affect uric acid test results. -If a kidney X-ray with dye or computerized tomography (CT) scan with contrast has been performed, patient should wait a minimum of 1 day before starting collection. -If a cholangiography (bile duct X-ray) has performed, patient should wait 7 days before starting collection. -Urine must be collected before tablets have been taken for gallbladder X-ray, otherwise patient should wait 7 days before starting collection. Supplies: Diazolidinyl Urea (Germall) 5.0 mL (T822) Collection Container/Tube: 24-hour graduated urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 60-mL

urine bottle Specimen Volume: 35 mL Collection Instructions: 1. Add 5 mL of diazolidinyl urea as preservative at start of collection or refrigerate specimen during and after collection. 2. Collect urine for 24 hours. 3. Specimen pH should be between 4.5 and 8 and will stay in this range if diazolidinyl urea is added at the beginning of the collection or kept refrigerated during the entirety of the collection. Specimens with pH above 8 indicate bacterial contamination, and testing will be canceled. Do not attempt to adjust pH as it will adversely affect results. 4. If not using Germall, the specimen must be kept refrigerated during the entirety of the collection and sent frozen. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 16 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 82340-Calcium; 82436-Chloride; 82507-Citrate excretion; 82570-Creatinine; 83735-Magnesium; 83935-Osmolality; 83945-Oxalate; 83986-pH; 84105-Phosphorus; 84133-Potassium; 84300-Sodium; 84392-Sulfate; 84560-Uric acid; 82140-Ammonium; 84540-Urea Nitrogen;

SRAU
616216

Serotonin Release Assay, Unfractionated Heparin, Mass Spectrometry, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 8 hours, preferred but not required; Collect during an episode of suspected heparin-induced thrombocytopenia 2. Patient should not be on ticagrelor (Brilinta) as this may interfere with the assay, yielding a false-negative result. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: 13-mm x 75-mm, 5-mL, plastic vial (polypropylene preferred) Specimen Volume: 1 mL Serum Collection Instructions: 1. After collection, allow the specimen to sit for a minimum of 1 hour at ambient temperature to ensure it clots completely. 2. Within 48 hours of collection, centrifuge and aliquot serum into a 13-mm x 75-mm, 5-mL, polypropylene vial

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen (preferred)	
	Refrigerated	7 days

CPT Code Information: 82542

SSH24
616228

Supersaturation Profile, Self-Collect, 24 Hour, Urine

Specimen Requirements: Patient Preparation: X-ray dyes and contrast media will affect uric acid test results. -If a kidney X-ray with dye or computerized tomography (CT) scan with contrast has been performed, the patient should wait at least 24 hours before starting collection. -If a cholangiography (bile duct X-ray) has been performed, the patient should wait 7 days before starting collection. -If patient has taken tablets for a gallbladder X-ray, the patient should wait 7 days before starting collection. Supplies: SSH24 Home Collection Kit (T921) Collection Container/Tube: 24-hour graduated urine container with no metal cap or glued insert Submission Container/Tube: Plastic, 60-mL urine bottle Specimen Volume: 35 mL Collection Instructions: 1. Order test each time the patient is to collect a 24-hour urine specimen at home and mail the specimen directly to Mayo Clinic Laboratories. 2. Order should be placed a minimum of 3 days prior to desired date of collection. 3. Enter patient's address information for each order created, including street address, city, state abbreviation, zip code, country, and home phone number. 4. For each order, the SSH24 Home Collection kit will be mailed directly to the patient for self-collection. This kit contains instructions for how to properly collect and transport the specimen after collection.

Specimen Minimum Volume: 16 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 82340-Calcium; 82436-Chloride; 82507-Citrate excretion; 82570-Creatinine; 83735-Magnesium; 83935-Osmolality; 83945-Oxalate; 83986-pH; 84105-Phosphorus; 84133-Potassium; 84300-Sodium; 84392-Sulfate; 84560-Uric acid; 82140-Ammonium; 84540-Urea Nitrogen;

THCCR
616333

Delta 9-Carboxy-Tetrahydrocannabinol (THC-COOH) Confirmation and Creatinine Ratio, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Collection Container/Tube: Plastic urine container Submission Container/Tube: 10-mL urine tube Specimen Volume: 10 mL Collection Instructions: 1. Collect a random urine specimen. 2. Submit 10 mL in a plastic container. 3. No preservative. Additional Information: 1. No specimen substitutions. 2. Submitting less than 10 mL may compromise the ability to perform all necessary testing. 3. STAT requests are not accepted for this test.

Specimen Minimum Volume: 6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: G0480; 82570 (if appropriate for select payers); 80349 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

THCCU
616334

Delta-9-Carboxy-Tetrahydrocannabinol Confirmation and Creatinine Ratio, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see THCCR / Delta 9-Carboxy-Tetrahydrocannabinol (THC-COOH) Confirmation and Creatinine Ratio, Random, Urine Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container Tube: Plastic urine container Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. Additional Information: 1. No specimen substitutions. 2. STAT requests are not accepted for this test.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: G0480; 80349 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

SUPRA
616375

Supersaturation Profile, Random, Urine

Specimen Requirements: Supplies: -Urine Tubes, 10 mL (T068) -Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: 90 mL urine container Submission Container/Tube: 2 x 10 mL plastic urine tubes and 5 x 5 mL plastic urine tubes Specimen Volume: 40 mL Collection Instructions: 1. Collect a random urine specimen, mix collection container thoroughly and divide the urine into 7 plastic tubes (2 x 10 mL and 5 x 5 mL). 2. Refrigerate specimen after collection. Specimen pH should be between 4.5 and 8 and will stay in this range if kept refrigerated. Specimens with pH above 8 indicate bacterial contamination, and testing will be canceled. Do not attempt to adjust pH as it will adversely affect results.

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 82310-Calcium; 82436-Chloride; 82507-Citrate excretion; 82570-Creatinine; 83735-Magnesium; 83935-Osmolality; 83945-Oxalate; 83986-pH; 84105-Phosphorus; 84133-Potassium; 84300-Sodium; 84392-Sulfate; 84560-Uric acid; 82140-Ammonium;

RPB
616389

Respiratory Panel, PCR, Varies

Specimen Requirements: Specimen Type: Respiratory fluid Sources: Bronchoalveolar lavage (BAL) or bronchial washing Collection Container/Tube: Sterile container Specimen Volume: 1 mL

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	72 hours
	Frozen	30 days
	Ambient	4 hours

CPT Code Information: 87633

CONCS
616442

Contactin-1 IgG Cell Binding Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -CIDP / Chronic Inflammatory Demyelinating Polyradiculoneuropathy/Nodopathy Evaluation, Serum -DMNES / Peripheral Nervous System Demyelinating Neuropathy, Autoimmune Evaluation, Serum Patient Preparation: For optimal antibody detection, specimen collection is recommended to occur prior to starting immunosuppressant medication or intravenous immunoglobulin treatment (IVIg). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

CIDP
616443

Chronic Inflammatory Demyelinating Polyradiculoneuropathy/Nodopathy Evaluation, Serum

Specimen Requirements:

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255 x 2

CIDPI
616444

Chronic Inflammatory Demyelinating Polyradiculoneuropathy/Nodopathy Interpretation, Serum (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

T46IS
616445

Tripartite Motif-Containing Protein 46 (TRIM46) IgG, Tissue

Immunofluorescence, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

T46IC
616446

Tripartite Motif-Containing Protein 46 (TRIM46) IgG, Tissue Immunofluorescence, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

T46TS
616447

Tripartite Motif-Containing Protein 46 (TRIM46) IgG, Tissue Immunofluorescence Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation,

Serum MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

T46TC
616448

Tripartite Motif-Containing Protein 46 (TRIM46) IgG, Tissue Immunofluorescence Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

T46CS
616449

Tripartite Motif-Containing Protein 46 (TRIM46) IgG, Cell Binding Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

T46CC
616450

Tripartite Motif-Containing Protein 46 (TRIM46) IgG, Cell Binding Assay, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

KRASW
616452

KRAS Somatic Mutation Analysis, Peritoneal Fluid

Specimen Requirements: Container/Tube: 50-mL Falcon tube Preferred: Fresh, peritoneal washing; no fixatives added to wash Specimen Volume: Two 50-mL Falcon tubes Collection Instructions: Containers must be labeled with two unique patient identifiers.

Specimen Minimum Volume: 100 mL of peritoneal washing

Transport Temperature:

Specimen Type	Temperature	Time
Peritoneal	Refrigerated (preferred)	10 days
	Ambient	5 days

CPT Code Information: 81275-KRAS (v-Ki-ras2 Kirsten rat sarcoma viral oncogene) (eg, carcinoma) gene analysis, variants in codons 12 and 13; 81276-KRAS (v-Ki-ras2 Kirsten rat sarcoma viral oncogene) (eg, carcinoma) gene analysis, additional variants;

MCLNG 616486 MayoComplete Lung Cancer-Targeted Gene Panel with Rearrangement, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 360 mm(2) -Minimum amount of tumor area: tissue 72 mm(2) -These amounts are cumulative over up to 20 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirements for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 20 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 20 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 20 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 20 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 20 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (Diff-Quik, Pap-stained direct smears, or ThinPrep) Slides: 2 to 3 Slides Collection Instructions: Submit at least 2 slides stained and coverslipped with a total of 10,000 nucleated cells (preferred) or at least 2000 nucleated cells (minimum) per slide. Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81457;

MCLNM 616487 MayoComplete Lung Cancer Mutations, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified - For specimen preparation guidance, see Tissue Requirements for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

MCLNR
616488

MayoComplete Lung Rearrangements, Rapid Test, Tumor

Specimen Requirements: This assay requires at least 10% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 36 mm(2) -Minimum amount of tumor area: tissue 18 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from

the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81449

MCCRC 616489 MayoComplete Colorectal Cancer Panel, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirements for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a preferred total of 5000 nucleated cells, or a minimum of at least 3000 nucleated cells. Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2.

Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381 - Microdissection, manual; 81457;

MCGST
616490

MayoComplete Gastrointestinal Stromal Tumor (GIST) Panel, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens.. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual 81457

MCMLN 616491 MayoComplete Melanoma Panel, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirements for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81457;

MCSRC
616492

MayoComplete Comprehensive Sarcoma Panel, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 360 mm(2) -Minimum amount of tumor area: tissue 72 mm(2) -These amounts are cumulative over up to 15 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirements for Sold Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 15 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 15 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (Diff-Quik or Pap stained direct smears or ThinPrep) Slides: 2 to 6 Slides Collection Instructions: Submit 2 to 6 slides, stained and coverslipped, with a total of 10,000 nucleated cells (preferred) or 2 slides with at least 2000 nucleated cells per slide (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81457; 81456; ;

MCSMP
616493

MayoComplete Sarcoma Mutation Panel, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144

mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81457

BRCAT
616495

BRCA1/2 Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the following slides: 1 slide stained with hematoxylin and eosin AND 10 unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides

that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred), or a minimum of 3000 nucleated cells. Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381 - Microdissection, manual; 81163;

TP53
616496

TP53 Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirements for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81351;

IDHT
616498

IDH1 and IDH2 Mutation Analyses, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirements for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81479;

CTNBT
616499

B-Catenin Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2) Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a preferred total of 5000 nucleated cells, or a minimum of at least 3000 nucleated cells. Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81479;

ESR1T
616500

ESR1 Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. NOTE: Submit tissue from either local recurrence or metastatic disease collected after endocrine therapy has been administered (see Clinical Information for more details). -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381 - Microdissection, manual; 81479;

XL2T
616501

FOXL2 Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred:

Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381 - Microdissection, manual; 81479;

AMGEN
616513

Mycoplasma genitalium, Transcription-Mediated Amplification, Urine or Urogenital Swab

Specimen Requirements:

Specimen Minimum Volume: Urine-first void: 2 mL; Swabs (endocervical, urethral, vaginal, penile/ meatal): See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Varies	APTIMA VIAL	

CPT Code Information: 87563

CSTB
616515

CSTB Gene, Repeat Expansion Analysis, Varies

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81188

HMEP
616524

Hemiplegic Migraine With or Without Epilepsy Gene Panel, Varies

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81185; 81405; 81406 x 2; 81407; 81408; 81479 (if appropriate for government payers); 88233-Tissue culture, skin, solid tissue biopsy (if appropriate) 88240-Cryopreservation (if appropriate)

TSCP
616537

Tuberous Sclerosis Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva

Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Send: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions T800) Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1.

Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406; 81407; 81265-Maternal cell contamination (if appropriate); 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88235-Amniotic Fluid culture (if appropriate); 88240-Cryopreservation (if appropriate); 81479 (if appropriate for government payers);

EPPAN
616550

Comprehensive Epilepsy With or Without Encephalopathy Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original

tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81419

NTC3Z
616563

NOTCH3 Gene, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole

blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

MCP2Z
616576

MECP2 Gene, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2.

Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Refrigerated (preferred)/Ambient Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblast Container/Tube: T-25 flask Specimen Volume: 2 flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred)/Refrigerated (<24 hours) Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filtration Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 (formerly Ahlstrom 226) filter paper or blood spot collection card Specimen Volume: 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect Dried Blood Spot Samples. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 2. For collection instructions, see Blood Spot Collection Instructions 3. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 4. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: Blood: 1 mL; Skin biopsy, cultured fibroblasts, dried blood spots, or saliva: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81302; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

LAPYP
616609

Lactate Pyruvate Panel, Plasma

Specimen Requirements: Collection Container/Tube: Preferred: Green top (Sodium heparin)

Acceptable: Green top (Lithium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	90 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 83605; 84210;

MMPP
616610

Mitochondrial Metabolites, Plasma

Specimen Requirements: Collection Container/Tube: Preferred: Green top (Sodium heparin) Acceptable: Green top (Lithium heparin) Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	7 days

CPT Code Information: 82542

TRIG1
616665

Triglycerides, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Specimen Volume: 0.5 mL Collection Container/Tube: Plastic vial Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days

CPT Code Information: 84478

LPSC1
616696

Lipid Panel, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Serum gel tube must be centrifuged within 2 hours of collection. 2. Red-top tube must be centrifuged and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 80061-Lipid panel (if all 3 performed); 82465-Cholesterol, total (if all 3 are not performed); 84478-Triglycerides (if all 3 are not performed); 83718-Cholesterol, HDL (if all 3 are not performed);

CRMP1
616727

Cardiovascular Risk Marker Panel, Serum

Specimen Requirements: Patient Preparation: Fasting: 12 hours, preferred but not required unless directed by the ordering provider Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 80061-Lipid panel (includes: HDL [CPT Code 83718], total cholesterol [CPT Code 82465], and triglycerides [CPT Code 84478]); 83695-Lipoprotein (a); 86141-C-reactive protein; high sensitivity (hsCRP); 82172-Apolipoprotein B;

CYSTG
616730

Cysticercosis (Taenia solium), IgG, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days

CPT Code Information: 86682

ECHNG
616731

Echinococcus Antibody, IgG, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days

CPT Code Information: 86682

EHOLG
616732

Entamoeba histolytica Antibody, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days

CPT Code Information: 86753

TRCNG
616733

Trichinella Antibody, IgG, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	5 days

CPT Code Information: 86784

TOXCG
616734

Toxocara Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	5 days

CPT Code Information: 86682

RAPAN
616785

Rheumatoid Arthritis Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86200; 86431;

BRFKT
616786

BRAF and KIT Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the following slides: 1 slide stained with hematoxylin and eosin AND 10 unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning

cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred), or a minimum of 3000 nucleated cells. Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81406; 81479; 81479 (if appropriate for government payers);

WESMT
616787

Whole Exome and Mitochondrial Genome Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred:

Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Send: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur Specimen Type: Muscle tissue biopsy Supplies: Muscle Biopsy Kit (T541) Specimen Volume: 20 to 80 mg Collection Instructions: Prepare and transport specimen per instructions in Muscle Biopsy Specimen Preparation. Specimen Stability Information: Frozen (preferred) <24 hours/Ambient <24 hours/Refrigerated <24 hours Additional Information: Specimens are preferred to be received within 24 hours of collection. Extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81415-Patient only; 81415, 81416-Patient and one family member comparator sample (duo) (as appropriate); 81415, 81416 x 2-Patient and two family member comparator samples (trio or non-traditional trio) (as appropriate); 81415, 81416 x 3-Patient and three family member comparator samples (quad) (as appropriate); 81460-Whole Mitochondrial Genome; 81465-Whole Mitochondrial Genome Large Deletion Analysis; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

HFWET
616820

Hematopathology Consult, MCL

Specimen Requirements: Multiple specimens are required to perform testing. Submit each of the following: Specimen Type: Bone marrow core biopsy unprocessed Container/Tube: 10% formalin solution Collection Instructions: 1. If bone marrow units are sparse or absent or aspirate is a dry tap, make 3 biopsy touch prep slides. 2. Place biopsy core in 10% formalin immediately after collection. 3. Place Parafilm around the container to prevent leaking and exposure to formalin fumes during transport. Specimen Type: Bone marrow clot unprocessed Container/Tube: 10% formalin solution Collection Instructions: 1. Place 0.5 mL bone marrow aspirate in clot tube. 2. After clot has formed, place clot in 10% formalin. 3. Place Parafilm around the container to prevent leaking and exposure to formalin fumes during transport. Specimen Type: Whole blood Container/Tube: Transport in plastic slide holders. Collection Instructions: 1. Prepare 2 good quality smears of even thickness from whole blood EDTA within 8 hours of collection. 2. Submit unstained and unfixed slides. 3. Place slides in a plastic slide holder and place parafilm around the slide holder. Place slides in a separate bag apart from any formalin-fixed clot or core biopsy specimens during transport. If using slide carriers, make sure they have not previously been used to carry fixed slides. Specimen Type: 2 slides from bone marrow aspirate and 1 slide from roll preparation on bone marrow biopsy (or 3 slides from a roll preparation on bone marrow biopsy) Container/Tube: Transport in plastic slide holders. Collection Instructions: 1. Prepare fresh prep slides of good quality (push and squash) made at the time of sample collection of even thickness from aspirate and roll prep slides from bone biopsy. Select 1 push, 1 squash, 1 roll of best quality, and send slides unfixed and unstained. 2. If bone marrow units are sparse or absent or aspirate is a dry tap, make 3 bone biopsy roll prep slides and send all 3 slides unfixed and unstained. 3. Air dry slides. 4. Place slides in a plastic slide holder and place parafilm around the slide holder. Place slides in a separate bag apart from any formalin-fixed clot or core biopsy specimens during transport. If using slide carriers, make sure they have not previously been used to carry fixed slides. Specimen Type: Bone marrow aspirate in anticoagulant for possible ancillary testing Container/Tube: Lavender top (EDTA), yellow top (ACD), and green top (sodium heparin) Specimen Volume: 3 mL in EDTA 6 mL in ACD 6 mL in sodium heparin Collection Instructions: 1. Aspirate per standard bone marrow collection procedure. 2. Send bone marrow specimens in original tubes. Do not aliquot.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient	

CPT Code Information: 85060 (if appropriate); 85097 (if appropriate); 88305 (if appropriate); 88311 (if appropriate); 88313 (if appropriate);

QFEVR
616832

Q Fever Antibody Screen with Titer Reflex, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 86638; 86638 x4 (if appropriate);

ARSBB
616834

Arylsulfatase B, Blood Spot

Specimen Requirements: Submit only 1 of the following specimen types: Preferred: Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 Paper, PerkinElmer 226 filter paper, Munktell filter paper, or blood collected in tubes containing ACD or EDTA and dried on filter paper. Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. At least 2 spots should be complete (ie, unpunched). 3. Let blood dry on filter paper at room temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Specimen Stability Information: Refrigerated (preferred) 60 days/Ambient 7 days/Frozen 60 days Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions. 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800). Acceptable: Specimen Type: Whole Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Refrigerate (preferred) 7 days/Ambient 48 hours

Specimen Minimum Volume: Blood spot: 1; Whole blood: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Varies	

CPT Code Information: 82657; 83864 (if appropriate);

ARSBW
616835

Arylsulfatase B, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 82657

NCLBS
616838

Neuronal Ceroid Lipofuscinosis, Two-Enzyme Panel, Blood Spot

Specimen Requirements: Submit only 1 of the following specimen types: Preferred: Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 Paper, PerkinElmer 226 filter paper, Munktell filter paper, or blood collected in tubes containing ACD or EDTA and dried on filter paper. Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. At least 2 spots should be complete, ie, unpunched. 3. Let blood dry on filter paper at room temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Specimen Stability Information: Refrigerated (preferred) 60 days/Ambient 7 days/Frozen 60 days Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800). Acceptable: Specimen Type: Whole Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Refrigerate (preferred) 7 days/Ambient 48 hours

Specimen Minimum Volume: Blood Spots: 1; Whole Blood: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Varies	

CPT Code Information: 82657

NCLW
616839

Neuronal Ceroid Lipofuscinosis, Two-Enzyme Panel, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 82657

RETB
616856

Reticulocyte Profile, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	48 hours
	Ambient	24 hours

CPT Code Information: 85046

SYPH1
616860

Syphilis IgG with Reflex, Enzyme Immunoassay, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86780-Syphilis IgG Screen; 86592-Syphilis Rapid Plasma Reagin Screen (if appropriate); 86593-Rapid Plasma Reagin Titer (if appropriate); 86780-Syphilis Antibody by TP-PA (if appropriate);

NSYPH
616862

Syphilis IgG Enzyme Immunoassay, Serum

Specimen Requirements: Collection Container/Tube: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86780

RPRT1
616863

Rapid Plasma Reagin (RPR) Screen with Reflex to Titer, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86592; 86593-Rapid Plasma Reagin Titer (if appropriate);

RPRT2
616865

Rapid Plasma Reagin Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see RPRT1 / Rapid Plasma Reagin (RPR) Screen with Reflex to Titer, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86593

RRPRS
616866

Rapid Plasma Reagin Screen with Reflex to Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see SYPH1 / Syphilis IgG with Reflex, Enzyme Immunoassay, Serum Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Information: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86592-Rapid Plasma Reagin Screen; 86593-Rapid Plasma Reagin Titer (if appropriate); 86780-Syphilis Antibody by TP-PA (if appropriate);

COL7
616879

Anti-Collagen type VII, IgG Antibodies, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 83516

TRPS1
616890

Trichorhinophalangeal syndrome type 1 (TRPS1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

IDH2
616903

IHD2, R172K Mutation, Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

C1INF
616906

C1 Esterase Inhibitor, Functional, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen	28 days

CPT Code Information: 83520

MPQU
616907

Monoclonal Protein Quantitation, 24 Hour, Urine

Specimen Requirements: Supplies: Urine Container, 60 mL (T313) Submission Container/Tube: Plastic, 60-mL urine bottle Specimen Volume: 50 mL Collection Instructions: 1. Collect urine for 24 hours and refrigerate during collection. 2. Aliquot between 30 mL and 50 mL urine into plastic, 60-mL urine bottle. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 30 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	5 days
	Ambient	24 hours

CPT Code Information: 84156; 84166; 0077U (if appropriate);

RMPQU
616909

Monoclonal Protein Quantitation, Random, Urine

Specimen Requirements: Supplies: Urine Container, 60 mL (T313) Submission Container/Tube: Plastic, 60-mL urine bottle Specimen Volume: 50 mL Collection Instructions: 1. Collect random urine specimen. 2. Aliquot between 30 mL and 50 mL of urine into a plastic, 60-mL urine bottle and refrigerate.

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	5 days
	Ambient	24 hours

CPT Code Information: 84156; 82570; 84166; 0077U (if appropriate);

MPU
616911

Monoclonal Protein Studies, 24 Hour, Urine

Specimen Requirements: Supplies: Urine Container, 60 mL (T313) Submission Container/Tube: Plastic, 60-mL urine bottle Specimen Volume: 50 mL Collection Instructions: 1. Collect urine for 24 hours and refrigerate during collection. 2. Aliquot between 30 mL and 50 mL urine into plastic, 60-mL urine bottle. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 30 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	5 days
	Ambient	24 hours

CPT Code Information: 84156; 84166; 0077U;

RMPU
616912

Monoclonal Protein Studies, Random, Urine

Specimen Requirements: Supplies: Urine Container, 60 mL (T313) Submission Container/Tube: Plastic, 60-mL urine bottle Specimen Volume: 50 mL Collection Instructions: 1. Collect a random urine specimen. 2. Aliquot between 30 mL and 50 mL of urine into a plastic, 60-mL urine bottle and refrigerate.

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	5 days
	Ambient	24 hours

CPT Code Information: 84156; 82570; 84166; 0077U;

SMPU
616913

Monoclonal Protein Screen, 24 Hour, Urine

Specimen Requirements: Supplies: Urine Container, 60 mL (T313) Submission Container/Tube: Plastic, 60-mL urine bottle Specimen Volume: 50 mL Collection Instructions: 1. Collect urine for 24 hours and refrigerate specimen during collection. 2. Aliquot between 30 mL and 50 mL of urine into a plastic, 60-mL urine bottle. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 30 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	5 days
	Ambient	24 hours

CPT Code Information: 84156; 84166 Electrophoresis, protein (if appropriate); 0077U;

RSMPU
616915

Monoclonal Protein Screen, Random, Urine

Specimen Requirements: Supplies: Urine Container, 60 mL (T313) Submission Container/Tube: Plastic, 60-mL urine bottle Specimen Volume: 50 mL Collection Instructions: 1. Collect random urine specimen. 2. Aliquot between 30 mL and 50 mL of urine into a plastic, 60 mL urine bottle and refrigerate.

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	5 days
	Ambient	24 hours

CPT Code Information: 84156; 82570; 84166 Electrophoresis, protein (if appropriate); 0077U;

HIQDR
616917

HIV-1 RNA Quantification with Reflex to Genotypic Drug Resistance to Reverse Transcriptase, Protease, and Integrase Inhibitors, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 3.6 mL Plasma Collection Instructions: Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	55 days
	Refrigerated	5 days

CPT Code Information: 87536 ; 0219U (if appropriate);

C5B9
616921

SC5b-9 Level Terminal Complement Complex, Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	14 days

CPT Code Information: 86160

MBRAF
616925

BRAF V600 Somatic Mutation Analysis, Bone Marrow

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81210

TBRAF
616940

BRAF V600 Somatic Mutation Analysis, Tumor, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block. Blocks prepared with alternative fixation methods will not be accepted; provide fixation method used Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin stained and 4 or more unstained Collection Instructions: 1. A minimum of 10 percent tumor is required. 2. Submit 1 hematoxylin and eosin-stained slide and 4 to 10 unstained, nonbaked slides with 7 to 10-micron thick sections of the tumor tissue with an aggregate of 25 mm squared. 10 microns is preferred. 3. 5-micron sections will be accepted if a 50 mm squared aggregate is cut

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin-stained slide and 1 unstained slide for each probe set

Transport Temperature:

Specimen Type	Temperature	Time
Tissue, Paraffin	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81210

RPRT3
616970

Rapid Plasma Reagin (RPR) with Reflex to Treponema pallidum Particle Agglutination, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.3 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86592; 86593- (if appropriate); 86780- (if appropriate);

CLDL1
617023

Cholesterol, Low-Density Lipoprotein (LDL), Calculated, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see LPSC1 / Lipid Panel, Serum

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

INTC1
617028

Fasting (8 Hours or more) (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days

SEMA3
617055

Semaphorin 3B (SEMA3B) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

NMITO
617090

Nuclear Mitochondrial Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell

contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred)

1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81440

CMITO
617103

Combined Mitochondrial Full Genome and Nuclear Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24

hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing.

3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81460; 81440; 81465;

ARVGG 617127 Arrhythmogenic Cardiomyopathy Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA

yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81439

CACMG 617141 Comprehensive Arrhythmia and Cardiomyopathy Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL

Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81439

CAORG 617155 Comprehensive Marfan, Loeys-Dietz, Ehlers-Danlos, and Aortopathy Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in

the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81410

CARGG
617169

Comprehensive Arrhythmia Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were

unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Full Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to

culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81413

CCMGG
617183

Comprehensive Cardiomyopathy Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable:

PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81439

CHDGG
617197

Congenital Heart Disease Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred)/Ambient Additional information: 1. If amniotic fluid or nonconfluent cultures are received, CULAF / Culture for Genetic Testing, Amniotic Fluid will be added at an additional charge. 2. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic

villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated Additional Information: 1. If nonconfluent cultures are received, CULFB / Fibroblast Culture for Biochemical or Molecular Testing will be added at an additional charge. 2. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Acceptable: Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Blood: 1 mL; Other specimen types: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81404; 81405 x 3; 81406 x 6; 81407 x 3; 81408; 81479; 81479 (if appropriate for government payers); 81265-Maternal cell contamination (if appropriate); 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88235-Amniotic Fluid culture (if appropriate); 88240-Cryopreservation (if appropriate);

CPVTG
617211

Catecholaminergic Polymorphic Ventricular Tachycardia Gene Panel, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405; 81408; 81479; 81479 (if appropriate for government payers);

CVHBG
617225

Comprehensive Cerebrovascular Gene Panel, Varies

Specimen Requirements:

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405 x5; 81406 x3; 81408; 81479; 81479 (if appropriate for government payers);

DCLNG 617239 Dilated Cardiomyopathy and Left Ventricular Noncompaction Cardiomyopathy Gene Panel, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81439

EDSGG 617253 Ehlers-Danlos Syndrome Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect

and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81408 x2; 81479; 81479 (if appropriate for government payers);

HCHLG
617267

Hypercholesterolemia Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended.

Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406 x2; 81407; 81479; 81479 (if appropriate for government payers);

HCMGG
617281

Hypertrophic Cardiomyopathy Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit of 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800 Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a

concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81439

HHTGG
617295

Hereditary Hemorrhagic Telangiectasia and Vascular Malformations Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile

container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect Dried Blood Spot Samples. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406 x3; 81479; 81479 (if appropriate for government payers);

HYPBG
617309

Hypobetalipoproteinemia Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert

several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline. Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information:: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred)

1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406; 81407; 81479; 81479 (if appropriate for government payers); 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

HYPTG
617323

Hypertriglyceridemia Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

LIPOG
617337

Lipodystrophy Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole

blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406 x2; 81408; 81479; 81479 (if appropriate for government payers);

LQTSG
617351

Long QT Syndrome Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen

Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be

extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81403; 81406 x2; 81407; 81479; 81479 (if appropriate for government payers);

MFBNG
617365

FBN1 Full Gene Sequencing with Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81408

MFRGG
617379

Marfan, Loeys-Dietz, and Aortopathy Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81410

NSRGG
617393

Noonan Syndrome and Related Conditions Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Samples. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see

Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal

specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81442; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 88235-Amniotic fluid culture (if appropriate); 81265-Maternal cell contamination (if appropriate);

OIBFG
617407

Osteogenesis Imperfecta and Bone Fragility Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred)/Ambient Additional information: 1. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. 2. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated Additional Information: 1. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Molecular Testing, Chorionic Villi/Products of Conception. 2. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Acceptable: Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Blood: 1 mL; Other specimen types: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

PCDGG
617421

Primary Ciliary Dyskinesia Gene Panel, Varies

PPT Code Information: 81406 x2, 81408 x2, 81479, 81479 (if appropriate for government payers);

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For

detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

PRKSG
617435

PRKAR1A Full Gene Sequencing with Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination,

Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

SCN5A
617449

Brugada Syndrome, SCN5A Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogeneic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur Specimen Type: Blood spot Supplies: Card-Blood Spot

Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. Samples. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Send Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions. 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800). Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81407

SQTSG
617463

Short QT Syndrome Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal

umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be

interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81403; 81406 x 2; 81479; 81479 (if appropriate for government payers);

PETH
617480

Phosphatidylethanol Confirmation, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 1 mL Collection Instructions: 1. Do not use alcohol to clean arm. Use alternative (such as Betadine, also known as Povidone Iodine) to cleanse site before specimen collection. 2. Draw blood in tubes smaller than 10 mL if possible. 3. Do not centrifuge. 4. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Frozen (preferred)	28 days
	Refrigerated	14 days

CPT Code Information: G0480; 80321 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

POWVB
617484

Powassan Virus, RNA, Molecular Detection, PCR, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

POWVC
617485

Powassan Virus, RNA, Molecular Detection, PCR, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: 1. Send specimen from collection vial 2. 2. Do not centrifuge or heat inactivate.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

POWVS
617486

Powassan Virus, RNA, Molecular Detection, PCR, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container: Sterile container Specimen Volume: 0.5 mL Collection Instructions: 1. Within 2 hours of collection centrifuge and aliquot serum into a sterile container. 2. Serum specimens not aliquoted from the serum gel collection tube into a sterile container will be rejected.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

POWVU
617487

Powassan Virus, RNA, Molecular Detection, PCR, Random, Urine

Specimen Requirements: Container/Tube: Sterile container Specimen Volume: 1 mL Collection Instructions: 1. Collect random urine in a sterile container. 2. Label specimen as urine.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

SFRB
617492

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS CoV-2), Influenza A and B, and Respiratory Syncytial Virus, Molecular Detection, Bronchoalveolar Lavage

Specimen Requirements: Source: Bronchoalveolar lavage (BAL) Container/Tube: Sterile container Specimen Volume: 1 mL Additional Information: Do not aliquot into viral transport medium.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Bronchoalveolar Lavage	Refrigerated (preferred)	72 hours
	Ambient	24 hours

CPT Code Information: 87637

AFTDP
617493

Inherited Frontotemporal Dementia and Amyotrophic Lateral Sclerosis Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood

specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81403; 81406 x 9; 81404 x 3; 81405 x 2; 81407; 81479; 81479 (if appropriate for government payers);

ATAXP
617506

Inherited Ataxia Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4

days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

CMSP
617519

Inherited Congenital Myasthenic Syndrome Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal

blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

DMDZ
617532

DMD Gene, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens

under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81408

DWPAN
617545

Comprehensive Distal Weakness Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

EDMDP
617558

Inherited Emery-Dreifuss Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405; 81404; 81406 x 2; 81479; 81479 (if appropriate for government payers);

IMNP
617571

Inherited Motor Neuropathy Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81404 x 2; 81405; 81406 x 2; 81479; 81479 (if appropriate for government payers);

IMSNP
617584

Inherited Motor and Sensory Neuropathy Gene Panel, Varies

Specimen Requirements: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81448

ISNP
617597

Inherited Sensory Neuropathy Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole

blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81448

ISPP
617610

Inherited Spastic Paraplegia Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA

requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81448

LGCMP
617623

Inherited Limb-Girdle Muscular Dystrophy and Congenital Myasthenic Syndrome Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended.

Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

MDYSP
617636

Inherited Muscular Dystrophy Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information:

DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

MNDP
617649

Inherited Motor Neuron Disease Gene Panel, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

MUPAN
617662

Comprehensive Neuromuscular Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA

requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

PARDP
617675

Inherited Parkinson Disease Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva

swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81403; 81404 x 3; 81405 x 4; 81406 x 9; 81407; 81408; 81479; 81479 (if appropriate for government payers);

PEPAN
617688

Comprehensive Peripheral Neuropathy Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required

to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81448

RABMP 617701 Inherited Rhabdomyolysis and Metabolic Myopathy Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has

experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

SEP9Z
617714

SEPTIN9 Gene, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient

(preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after

culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

SMCP
617727

Inherited Skeletal Muscle Channelopathy Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: None Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information:

DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81403; 81406 x 3; 81479; 81479 (if appropriate for government payers);

SOD1Z
617740

SOD1 Gene, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a

horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular

Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81404

TTRZ
617753

TTR Gene, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin): Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25

flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1year /Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be

attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81404; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88235-Amniotic fluid culture (if appropriate); 81265-Maternal cell contamination (if appropriate);

ORTHP
617766

Orthostatic Proteinuria, Random, Urine

Specimen Requirements: Patient Preparation: Specimens should be collected before fluorescein is given or not collected until at least 24 hour later. Container/Tube: Plastic, 5-mL tube Specimen Volume: 4 mL Collection Instructions: 1. This is a nighttime (supine) collection. 2. Void immediately prior to lying down to sleep. 3. Collect an 8-hour (nighttime) urine specimen. 4. Upon awaking in the morning, the patient should immediately void into the specimen cup. 4. No preservative. 5. Invert well before taking 4-mL (maximum) aliquot.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: CRETR- 82570; PRCON- 84156;

PRCON
617782

Protein, Total, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: ORTHP / Orthostatic Proteinuria, Random, Urine Patient Preparation: Specimens should be collected before fluorescein is given or not collected until at least 24 hour later. Container/Tube: Plastic, 5-mL tube Specimen Volume: 4 mL Collection Instructions: 1. This is a nighttime (supine) collection. 2. Void immediately prior to lying down. 3. Collect an 8-hour (nighttime) urine specimen. 4. Upon awaking in the morning, the patient should immediately void into the specimen cup. 4. No preservative. 5. Invert well before taking 4-mL (maximum) aliquot.

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	24 hours

CPT Code Information: 84156

RATO2
617783

Protein/Creatinine, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see ORTHP / Orthostatic Proteinuria, Random, Urine.

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	24 hours

SFX
617792

Protein S Activity, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85306

MEASR
617821

Measles Virus, Molecular Detection, PCR, Throat

Specimen Requirements: Specimen Type: Throat Swab Supplies: Culturette (BBL Culture Swab) (T092) Container/Tube: Sterile container with transport media Specimen Volume: Entire collection Collection Instructions: 1. Apply swab tip back and forth firmly over mucosal surface of pharynx (throat) to maximize recovery of cells. 2. Place swab in viral transport media (eg, Liquid Stuart, M4-RT, M4, M5, Bartels FlexTrans Transport Media) and refrigerate for transport to the testing laboratory.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87638

MEASU
617822

Measles Virus, Molecular Detection, PCR, Random, Urine

Specimen Requirements: Container/Tube: Sterile tube Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen during the 6-to-14-day period after rash onset in a sterile urine tube. 2. No preservative.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated	7 days

CPT Code Information: 87638

MUMPR
617823

Mumps Virus, Molecular Detection, PCR, Buccal

Specimen Requirements: Specimen Type: Buccal Swab Supplies: Culturette (BBL Culture Swab) (T092) Container/Tube: Sterile container with transport media Specimen Volume: Entire collection Collection Instructions: 1. Collect specimen by swabbing back and forth over mucosal surface around buccal cavity (the space near the upper rear molars between the cheek and the teeth) to maximize recovery of cells. 2. Swab must be placed into viral transport media (eg, M4-RT, M4, M5, Barthels FlexTrans Media or Jiangsu Transport Media)

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Swab	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

MUMPU
617824

Mumps Virus, Molecular Detection, PCR, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 1 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated	7 days

CPT Code Information: 87798

HIVDS
617825

HIV-1 and HIV-2 Antigen and Antibody Diagnostic Evaluation, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	30 days
	Refrigerated	6 days

CPT Code Information: 87389; 86701 (if appropriate); 86702 (if appropriate); 87535 (if appropriate); 87538 (if appropriate);

HIVSS
617826

HIV-1 and HIV-2 Antigen and Antibody Routine Screen, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	30 days
	Refrigerated	6 days

CPT Code Information: 87389; G0475 (if appropriate); 86701 (if appropriate); 86702 (if appropriate); 87535 (if appropriate); 87538 (if appropriate);

HVPRS
617827

HIV Antigen and Antibody Prenatal Routine Screen, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	30 days
	Refrigerated	6 days

CPT Code Information: 87389; G0475 (if appropriate); 86701 (if appropriate); 86702 (if appropriate); 87535 (if appropriate); 87538 (if appropriate);

HVPPS
617828

HIV-1 and HIV-2 Antibody Confirmation and Differentiation Prenatal, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	6 days

CPT Code Information: 86701; 86702; 87535 (if appropriate); 87538 (if appropriate);

HEXLA
617974

Hexagonal Lupus Anticoagulant, Plasma (Non-Orderable)

Specimen Requirements: Only orderable as part of a reflex. For more information see: -AATHR / Thrombophilia Profile, Plasma and Whole Blood -ACBL / Bleeding Diathesis Profile, Comprehensive, Plasma -ADIC / Disseminated Intravascular Coagulation/Intravascular Coagulation and Fibrinolysis (DIC/ICF) Profile, Plasma -ALBLD / Bleeding Diathesis Profile, Limited, Plasma -ALUPP / Lupus Anticoagulant Profile, Plasma -APROL / Prolonged Clot Time Profile, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	60 days

CPT Code Information: 85598

ADPKP
618002

Focused Autosomal Dominant Polycystic Kidney Disease Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405; 81406 x 2; 81407; 81479 (if appropriate for government payers);

AHUGP
618016

Atypical Hemolytic Uremic Syndrome (aHUS)/Thrombotic Microangiopathy (TMA) /Complement 3 Glomerulopathy (C3G) Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask

Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81404 81479 81479 (if appropriate for government payers)

ALAGP
618030

Alagille Syndrome Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type:

Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Full Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory

Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81407; 81479; 81479 (if appropriate for government payers);

ALPGP
618044

Alport Syndrome Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient 4 days (preferred)/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if

unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Full Flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81407 ; 81408 x 2 ; 81479; 81479 (if appropriate for government payers);

CASRG
618058

CASR Full Gene Sequencing with Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a hematopoietic stem cell transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight.. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 2. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will

be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 Flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405

CKDGP
618072

Cystic Kidney Disease Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated Prenatal Specimens: Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred)/Ambient Additional information: 1. If amniotic fluid or nonconfluent cultures are received, CULAF / Culture for Genetic Testing, Amniotic Fluid will be added at an additional charge. 2. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated Additional Information: 1. If nonconfluent cultures are received, CULFB / Fibroblast Culture for Biochemical or Molecular Testing will be added at an additional charge. 2. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Acceptable: Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Blood: 1 mL; Amniotic fluid/CVS: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81404; 81405; 81406 x 6; 81407 x 4; 81408 x 3; 81479; 81265-Maternal cell contamination (if appropriate); 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88235-Amniotic Fluid culture (if appropriate); 81479 (if appropriate for government payers);

NEPHP
618086

Comprehensive Nephrology Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81401 x 2; 81404 x 12; 81405 x 8; 81406 x 22; 81407 x 13; 81408 x 5; 81479; 81479 (if appropriate for government payers);

RBART
618100

Bartter Syndrome Gene Panel, Varies

Specimen Requirements: Patient Preparation A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms

and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81404; 81406; 81407; 81479; 81479 (if appropriate for government payers);

RFSGS
618114

Focal Segmental Glomerulosclerosis (FSGS) and Nephrotic Syndrome Gene Panel, Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81408 x 2; 81405 x 2; 81406 x 4; 81407 x 4; 81479; 81479 (if appropriate for government payers);

RSCGP
618128

Nephrocalcinosis, Nephrolithiasis, and Renal Electrolyte Imbalance Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81404 x 4; 81405 x 2; 81406 x 8; 81407 x 2; 81479; 81479 (if appropriate for government payers);

CRT2F
618161

Creatinine, 24 Hour, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -TLTE4 / Leukotriene E4, 24 Hour, Urine -MCM24 / Mast Cell Mediators, 24 Hour, Urine

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	30 days
	Refrigerated	30 days
	Ambient	14 days

APHTC 618164 Amphiphysin Antibody Titer Assay, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -SPPC / Stiff-Person Spectrum Disorders Evaluation, including Progressive Encephalomyelitis with Rigidity and Myoclonus, Spinal Fluid Container/Tube: Sterile vial Specimen Volume: 4 mL

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

APHTS 618165 Amphiphysin Antibody Titer Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -PAVAL / Paraneoplastic, Autoantibody Evaluation, Serum -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum -MAS1 / Myelopathy, Autoimmune/Paraneoplastic

Evaluation, Serum -SPPS / Stiff-Person Spectrum Disorders Evaluation, including Progressive Encephalomyelitis with Rigidity and Myoclonus, Serum -AIAES / Axonal Neuropathy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

TERTD
618208

TERT Promoter Mutation Analysis, Droplet Digital PCR, Tumor

Specimen Requirements: This assay requires at least 5% nuclei of tumor cells/cells of interest. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue144 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent nuclei of tumor cells/cells of interest. -Tissue fixation: 10% neutral buffered formalin, not decalcified -Cytology fixatives: Cytology smears fixed in alcohol and thin preps fixed with CytoLyt. Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81345; 88381-Microdissection, manual;

EDN
618211

Eosinophil Derived Neurotoxin, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Within 12 hours of collection, centrifuge and aliquot serum into a plastic vial. Serum cannot sit on either gel or cells for longer than 12 hours.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	21 days

CPT Code Information: 83520

CINPC
618275

CINtec IHC Multiplex, PC (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

CPT Code Information: 88344

GUSBB
618288

Beta-Glucuronidase, Blood Spot

Specimen Requirements: Submit only 1 of the following specimen types: Preferred: Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 Paper, PerkinElmer 226 filter paper, Munktell filter paper, or blood collected in tubes containing EDTA and dried on filter paper Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. At least 2 spots should be complete (ie, unpunched). 3. Let blood dry on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Specimen Stability Information: Refrigerated (preferred) 60 days/Ambient 7 days/Frozen 60 days Additional Information: 1. For collection

instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Acceptable: Specimen Type: Whole Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Refrigerate (preferred) 7 days/Ambient 48 hours.

Specimen Minimum Volume: Blood spot: 1; Whole blood: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Varies	

CPT Code Information: 82657

GUSBW
618289

Beta-Glucuronidase, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 82657

I2SB
618290

Iduronate-2-Sulfatase, Blood Spot

Specimen Requirements: Submit only 1 of the following specimen types: Preferred: Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood spot collection card Acceptable: Whatman Protein Saver 903 Paper, PerkinElmer 226 filter paper, Munktell filter paper, or blood collected in tubes containing ACD or EDTA and dried on filter paper. Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. At least 2 spots should be complete (ie, unpunched). 3. Let blood dry on the filter paper at room temperature in a horizontal position for 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Specimen Stability Information:

Refrigerated (preferred) 60 days/Ambient 7 days/Frozen 60 days Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Acceptable: Specimen Type: Whole Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Refrigerate (preferred) 7 days/Ambient 48 hours

Specimen Minimum Volume: Blood spots: 1; Whole blood: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Varies	

CPT Code Information: 82657; 83864 (if appropriate);

I2SWB
618291

Iduronate-2-Sulfatase, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 82657

MPS3B
618292

Mucopolysaccharidosis III, Three-Enzyme Panel, Blood Spot

Specimen Requirements: Submit only 1 of the following specimen types: Preferred: Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 Paper, PerkinElmer 226 filter paper, Munktell filter paper, or blood collected in tubes containing ACD or EDTA and dried on filter paper. Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. At least 2 spots should be complete (ie, unpunched). 3. Let blood dry on filter paper at room temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or

direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Specimen Stability Information: Refrigerated (preferred) 60 days/Ambient 7 days/Frozen 60 days Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions. 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800). Acceptable: Specimen Type: Whole Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Refrigerate (preferred) 7 days/Ambient 48 hours

Specimen Minimum Volume: Blood spots: 1; Whole blood: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Varies	

CPT Code Information: 82657; 83864 (if appropriate);

MPS3W
618293

Mucopolysaccharidosis III, Four-Enzyme Panel, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 82657

MPS4B
618294

Mucopolysaccharidosis IV Enzyme Panel, Blood Spot

Specimen Requirements: Submit only 1 of the following specimen types: Preferred: Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 Paper, PerkinElmer 226 filter paper, Munktell filter paper, or blood collected in tubes containing ACD or EDTA and dried on filter paper. Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. At least 2 spots should be complete, ie, unpunched. 3. Let blood dry on filter paper at room

temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Specimen Stability Information: Refrigerated (preferred) 60 days/Ambient 7 days/Frozen 60 days Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Acceptable: Specimen Type: Whole Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Refrigerate (preferred) 7 days/Ambient 48 hours

Specimen Minimum Volume: Blood spot: 1; Whole blood: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Varies	

CPT Code Information: 82657; 83864 (if appropriate);

MPS4W
618295

Mucopolysaccharidosis IV Enzyme Panel, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 82657

MSDBS
618296

Multiple Sulfatase Deficiency, Blood Spot

Specimen Requirements: Submit only 1 of the following specimen types: Preferred: Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 Paper, PerkinElmer 226 filter paper, Munktell filter paper, or blood collected in tubes containing ACD or EDTA and dried on filter paper. Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient 1 year of age or older is a fingerstick. For detailed instructions, see How to Collect a Dried Blood

Spot Sample. 2. At least 2 spots should be complete (ie, unpunched). 3. Let blood dry on filter paper at room temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Specimen Stability Information: Refrigerated (preferred) 60 days/Ambient 7 days/Frozen 60 days Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Acceptable: Specimen Type: Whole Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Refrigerate (preferred) 7 days/Ambient 48 hours

Specimen Minimum Volume: Blood spot: 1; Whole blood: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Varies	

CPT Code Information: 82657; 83864 (if appropriate);

MSDW
618297

Multiple Sulfatase Deficiency, Leukocytes

Specimen Requirements: Container/Tube: Preferred: Yellow top (ACD solution B) Acceptable: Yellow top (ACD solution A) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Refrigerated (preferred)	6 days
	Ambient	6 days

CPT Code Information: 82657

BMIPB
618298

Borrelia miyamotoi Detection, PCR, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Royal blue top (EDTA), pink top (EDTA), or sterile vial containing EDTA-derived aliquot Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube (preferred).

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87478

BPRPV
618299

Bordetella pertussis and Bordetella parapertussis, Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction (PCR) requires the specimen to be processed in an environment in which contamination of the specimen by Bordetella pertussis or Bordetella parapertussis DNA is unlikely. Submit only 1 of the following specimens: Preferred: Specimen Type: Nasopharyngeal swab Supplies: Culture Swab - Liquid Stuarts/Single Swab (NP Swab) (T515) Container/Tube: Rayon swab with an aluminum shaft placed in transport medium such as a green-top nasopharyngeal swab (rayon mini-tip) with Stuart's media (no charcoal), or Stuart's media with charcoal, or Amies media with or without charcoal (Transwab Nasopharyngeal with Charcoal System) Additional Information: 1. Swab transport containers without charcoal must contain a pledget saturated with either Stuart's or Amies liquid media. Clear semi-solid/solid media is gel and will be rejected. 2. Other swab or media types may be inhibitory to PCR testing and will be rejected. Acceptable: Specimen Type: Nasopharyngeal (not throat) aspirate/wash or nasal aspirate/wash Container/Tube: Sterile container with a screw top cap (no transport media) Specimen Volume: Entire collection

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Ambient	7 days
	Frozen	7 days

CPT Code Information: 87798 x 2; 87798 (if appropriate for government payers);

EPCRB
618301

Ehrlichia/Anaplasma, Molecular Detection, PCR, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Royal blue top (EDTA), pink top (EDTA), or sterile vial containing EDTA-derived aliquot Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube (preferred).

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87468; 87484; 87798 x 2; 87999 (if appropriate for government payers);

BABPB
618303

Babesia species, Molecular Detection, PCR, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Royal blue top (EDTA), pink top (EDTA), or sterile vial containing EDTA-derived aliquot Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube (preferred).

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798 x2; 87469; 87999 (if appropriate for government payers);

JCPCR
618305

JC Virus, Molecular Detection, PCR, Spinal Fluid

Specimen Requirements: Collection Container/Tube: Preferred: Vial number 2 Acceptable: Any vial number Submission Container/Tube: Sterile screw cap vial Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

EBVPV
618306

Epstein-Barr Virus (EBV), Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Fluid Sources: Spinal fluid, sterile body fluids (peritoneal fluid/ascites, pericardial fluid, pleural fluid/thoracentesis), amniotic, or ocular Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Preferred: Sterile screwcap 5-mL plastic vial Acceptable: Sterile container Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Fluid Sources: Respiratory; bronchial washing, bronchoalveolar lavage, nasopharyngeal aspirate or washing, sputum, or tracheal aspirate Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Sterile screwcap 5-mL plastic vial Acceptable: Sterile container Specimen Volume: 1.5 mL Specimen Type: Swab Sources: Eye and upper respiratory (nasal, throat) Supplies: -Culturette (BBL Culture Swab) (T092) -BD E-Swab (T853) -M4-RT(T605) Container/Tube: Multimicrobe media (M4-RT, M4, M5, Bartels, or Jiangsu) and E-Swab or Culturette Collection Instructions: Place swab back into multimicrobe media. Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) only Specimen Volume: 0.5 mL Additional Information: Clotted specimens will be rejected. Specimen Type: Fresh tissue Supplies: M4-RT (T605) Container/Tube: Preferred: Sterile container containing multimicrobe medium (M4-RT, M4, M5, Bartels, or Jiangsu) Acceptable: Sterile container containing 1-2 mL of sterile saline Specimen Volume: Entire collection Collection Instructions: Submit only fresh tissue. Fixed tissue is not acceptable.

Specimen Minimum Volume: Ocular Fluid, Spinal Fluid: 0.3 mL Sterile body fluids (peritoneal fluid/ascites, pericardial fluid, pleural fluid/thoracentesis): See Specimen Required Respiratory Specimens: 1 mL Tissue: 2 x 2-mm biopsy

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

HSVPV
618307

Herpes Simplex Virus (HSV), Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Body fluid Sources: Pleural, peritoneal, ascites, pericardial, amniotic, or ocular Container/Tube: Sterile container Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Swab Sources: Genital, dermal, ocular, nasal, throat, or oral Supplies: -Culturette (BBL Culture Swab) (T092) -BD E-

Swab (T853) -M4-RT (T605), Container/Tube: Multimicrobe media (M4-RT, M4, M5, Bartels, or Jiangsu) and E-Swab or Culturette Specimen Volume: Entire collection Collection Instructions: Place swab back into multimicrobe media. Specimen Type: Respiratory Sources: Bronchial washing, bronchoalveolar lavage, nasopharyngeal aspirate or washing, sputum, or tracheal aspirate Container/Tube: Sterile container Specimen Volume: 1.5 mL Specimen Type: Fresh tissue Supplies: M4-RT (T605) Container/Tube: Sterile container containing 1 mL to 2 mL of sterile saline or multimicrobe medium (M4-RT, M4, M5, Bartels, or Jiangsu) Specimen Volume: Entire collection Collection Instructions: Submit only fresh tissue. Fixed tissue is not acceptable. Specimen Type: Urine (newborns < or =35 days old) Container/Tube: Sterile container Specimen Volume: 0.5 mL

Specimen Minimum Volume: Amniotic or ocular fluid: 0.4 mL; Sterile body fluid (Pleural, peritoneal, ascites, pericardial): 0.5 mL; Respiratory Specimen: 1 mL; Swab, tissue, or urine: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87529 x 2; 87529 (if appropriate for government payers);

HSVPB
618308

Herpes Simplex Virus (HSV), Molecular Detection, PCR, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87529 x 2; 87529 (if appropriate for government payers);

VZVPV
618309

Varicella-Zoster Virus, Molecular Detection, PCR, Varies

Specimen Requirements:

Specimen Minimum Volume: Ocular Fluid and Spinal Fluid: 0.3 mL Body Fluid (pleural,

peritoneal, ascites, and pericardial): See Specimen Required Respiratory Specimens: 1 mL Tissue: 2 x 2 mm biopsy

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

LYMPV
618310

Lyme Disease, Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: Label specimen as spinal fluid. Specimen Type: Synovial fluid Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: Label specimen as synovial fluid. Specimen Type: Tissue (fresh only) Sources: Skin or synovial biopsy Container/Tube: Sterile container with normal saline Specimen Volume: Approximately 4 mm(3) Collection Instructions: 1. Submit only fresh tissue. 2. Skin biopsies: a. Wash biopsy site with an antiseptic soap. Thoroughly rinse area with sterile water. Do not use alcohol or iodine preparations. A local anesthetic may be used. b. Biopsy specimens are best taken by punch biopsy to include full thickness of dermis. 3. Label specimen with source of tissue.

Specimen Minimum Volume: Spinal fluid: 0.3 mL; Synovial fluid: 0.5 mL; Tissue: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87476; 87798 x 2; 87801 (if appropriate for government payers);

TIKLB
618311

Tick-Borne Panel, Molecular Detection, PCR, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Royal blue top (EDTA), pink top (EDTA), or sterile vial containing EDTA-derived aliquot Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube (preferred).

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798 x4; 87469; 87468; 87484; 87478; 87999 (if appropriate for government payers);

MALP
618475

Malabsorption Evaluation Panel, Feces

Specimen Requirements: Supplies: Malabsorption Panel (T920) Container/Tube: Malabsorption kit or 2 small stool containers Specimen Volume: 18 g split equally between 2 containers Collection Instructions: 1. Collect a fresh, random fecal specimen, no preservatives. 2. Split specimen equally between 2 small containers. 3. Label one small container with the A1AF and UREDF sample collection labels. Label the other small container with the CALPR, ELASF sample collection label. 4. Freeze immediately Additional Information: 1. Specimen must be split prior to transport. 2. Testing cannot be added to a previously collected specimen. 3. Specimen cannot be collected from a diaper.

Specimen Minimum Volume: 5 g

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen	7 days

CPT Code Information: 0430U

NGCLN
618476

MayoComplete Chronic Lymphoid Neoplasms, Next-Generation Sequencing, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender or pink top EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Whole blood Container/Tube: Preferred: Lavender or pink top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA

is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Paraffin-embedded tissue Container/Tube: Paraffin block Collection Instructions: 1. If available, send 1 representative hematoxylin and eosin-stained slide. 2. Minimum amount of tumor nuclei is 20% 3. Required amount of tissue area is at least 25 mm(2) 4. Tissue should be fixed in 10% neutral-buffered formalin. Other fixatives are not acceptable. 5. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. Specimen Stability Information: Ambient Additional Information: If the quality of the biopsy specimen is poor or the target tumor cell population is below 20%, testing should not be ordered. Testing may be canceled if DNA requirements are inadequate. Acceptable: Specimen Type: Tissue slide Slides: 20 unstained slides Container/ Tube: Transport in plastic slide holders. Collection Instructions: 1. Send 20 unstained, nonbaked slides with 5-micron thick sections of tissue. 2. If available, also send 1 representative hematoxylin and eosin-stained slide. 3. Minimum amount of tumor nuclei is 20% 4. Required amount of tissue area is at least 25 mm(2) 5. Tissue should be fixed in 10% neutral-buffered formalin. Other fixatives are not acceptable. 6. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. Specimen Stability Information: Ambient Additional Information: 1. Testing may be canceled if resultant extracted DNA does not meet concentration requirements. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Frozen tissue Container/Tube: Plastic container Specimen Volume: 100 mg Collection Instructions: Freeze tissue within 1 hour of collection Specimen Stability Information: Frozen Additional Information: Testing may be canceled if resultant extracted DNA does not meet concentration requirements. Specimen Type: Body fluid Container/Tube: Sterile container Specimen Volume: 5 mL Collection Instructions: Specify the type of fluid being submitted. Specimen Stability Information: Refrigerated 14 days/Frozen 14 days Additional Information: Testing may be canceled if resultant extracted DNA does not meet concentration requirements. Specimen Type: Extracted DNA Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted within 14 days after collection. 2. Label specimen as extracted DNA and source of specimen. 3. Indicate volume and concentration of DNA on label. Specimen Stability Information: Frozen (preferred)/Refrigerated/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. Forms

Specimen Minimum Volume: Whole blood, bone marrow aspirate, body fluid: 0.5 mL; Frozen tissue: 50 mg; Extracted DNA: 100 microliters (mcL) at 20 ng/mcL; Tissue slides: 10 unstained slides

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	14 days

CPT Code Information: 81450

NGBCL
618477

MayoComplete B-Cell Lymphoma, Next-Generation Sequencing, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender or pink top (EDTA) or yellow top (ACD)

Acceptable: Green top (sodium heparin) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Whole blood Container/Tube: Preferred: Lavender or pink top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Paraffin-embedded tissue Container/ Tube: Paraffin block Collection Instructions: 1. If available, send 1 representative hematoxylin and eosin-stained slide. 2. Minimum amount of tumor nuclei is 20% 3. Required amount of tissue area is at least 25 mm(2) 4. Tissue should be fixed in 10% neutral-buffered formalin. Other fixatives are not acceptable. 5. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. Specimen Stability Information: Ambient Additional Information: If the quality of the biopsy specimen is poor or the target tumor cell population is below 20%, testing should not be ordered. Testing may be canceled if DNA requirements are inadequate. Acceptable: Specimen Type: Tissue slide Slides: 20 unstained slides Container/ Tube: Transport in plastic slide holders. Collection Instructions: 1. Send 20 unstained, nonbaked slides with 5-micron thick sections of tissue. 2. If available, also send 1 representative hematoxylin and eosin-stained slide. 3. Minimum amount of tumor nuclei is 20% 4. Required amount of tissue area is at least 25 mm(2) 5. Tissue should be fixed in 10% neutral-buffered formalin. Other fixatives are not acceptable. 6. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. Specimen Stability Information: Ambient Additional Information: 1. Testing may be canceled if resultant extracted DNA does not meet concentration requirements. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Frozen tissue Container/Tube: Plastic container Specimen Volume: 100 mg Collection Instructions: Freeze tissue within 1 hour of collection Specimen Stability Information: Frozen Additional Information: Testing may be canceled if resultant extracted DNA does not meet concentration requirements. Specimen Type: Body fluid Container/Tube: Sterile container Specimen Volume: 5 mL Collection Instructions: Specify the type of fluid being submitted. Specimen Stability Information: Refrigerated 14 days/Frozen 14 days Additional Information: Testing may be canceled if resultant extracted DNA does not meet concentration requirements. Specimen Type: Extracted DNA Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted within 14 days after collection. 2. Label specimen as extracted DNA and source of specimen. 3. Indicate volume and concentration of DNA on label. Specimen Stability Information: Frozen (preferred)/Refrigerated/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood, bone marrow aspirate, body fluid: 0.5 mL; Frozen tissue: 50 mg; Extracted DNA: 100 microliters (mcL) at 20 ng/mcL; Tissue slides: 10 unstained slides

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	14 days

CPT Code Information: 81450

NGTCL
618478

MayoComplete T-Cell Lymphoma, Next-Generation Sequencing, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender or pink top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Whole blood Container/Tube: Preferred: Lavender or pink top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Paraffin-embedded tissue Container/Tube: Paraffin block Collection Instructions: 1. If available, send 1 representative hematoxylin and eosin-stained slide. 2. Minimum amount of tumor nuclei is 20% 3. Required amount of tissue area is at least 25 mm(2) 4. Tissue should be fixed in 10% neutral-buffered formalin. Other fixatives are not acceptable. 5. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. Specimen Stability Information: Ambient Additional Information: If the quality of the biopsy specimen is poor or the target tumor cell population is below 20%, testing should not be ordered. Testing may be canceled if DNA requirements are inadequate. Acceptable: Specimen Type: Tissue slide Slides: 20 unstained slides Container/ Tube: Transport in plastic slide holders. Collection Instructions: 1. Send 20 unstained, nonbaked slides with 5-micron thick sections of tissue. 2. If available, also send 1 representative hematoxylin and eosin-stained slide. 3. Minimum amount of tumor nuclei is 20% 4. Required amount of tissue area is at least 25 mm(2) 5. Tissue should be fixed in 10% neutral-buffered formalin. Other fixatives are not acceptable. 6. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. Specimen Stability Information: Ambient Additional Information: 1. Testing may be canceled if resultant extracted DNA does not meet concentration requirements. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Frozen tissue Container/Tube: Plastic container Specimen Volume: 100 mg Collection Instructions: Freeze tissue within 1 hour of collection Specimen Stability Information: Frozen Additional Information: Testing may be canceled if resultant extracted DNA does not meet concentration requirements. Specimen Type: Body fluid Container/Tube: Sterile container Specimen Volume: 5 mL Collection Instructions: Specify the type of fluid being submitted Specimen Stability Information: Refrigerated 14 days/Frozen 14 days Additional Information: Testing may be canceled if resultant extracted DNA does not meet concentration requirements. Specimen Type: Extracted DNA Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. Label specimen as extracted DNA and source of specimen 2. Indicate volume and concentration of DNA on label Specimen Stability Information: Frozen (preferred)/Refrigerated/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a

specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood, bone marrow aspirate, body fluid: 0.5 mL; Frozen tissue: 50 mg; Extracted DNA: 100 microliters (mcL) at 20 ng/mcL; Tissue slides: 10 unstained slides

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	14 days

CPT Code Information: 81450

NGPCM 618479 MayoComplete Plasma Cell Myeloma, Next-Generation Sequencing, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Bone marrow aspirate Container/Tube: Lavender or pink top (EDTA) or yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Minimum plasma cell percentage is 5%. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. 4. Label specimen as bone marrow. 5. Fresh specimen is required for this test, as testing is performed on sorted cells. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerate Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Paraffin-embedded bone marrow clot Container/Tube: Paraffin block 1. Send 1 hematoxylin and eosin-stained slide in addition to the paraffin block. 2. Minimum plasma cell percentage is 20%. 3. Required amount of tissue area is at least 25 mm(2). 4. Tissue should be fixed in 10% neutral-buffered formalin. Other fixatives are not acceptable. 5. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. Specimen Stability Information: Ambient Additional Information: If the quality of the specimen is poor or the plasma cell population is below 20%, testing should not be ordered. Testing may be canceled if DNA requirements are inadequate. Acceptable: Specimen Type: Tissue slide, bone marrow clot Slides: 20 unstained slides Container/Tube: Transport in plastic slide holders. Collection Instructions: 1. Send 20 unstained, nonbaked slides with 5-micron thick sections of tissue and 1 hematoxylin and eosin-stained slide. 2. Minimum amount of plasma cell percentage is 20%. 4. Required amount of tissue area is at least 25 mm(2). 5. Tissue should be fixed in 10% neutral-buffered formalin. Other fixatives are not acceptable. 6. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. Specimen Stability Information: Ambient Additional Information: 1. Testing may be canceled if resultant extracted DNA does not meet concentration requirements. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Bone marrow aspirate: 1 mL; Tissue slides: 10 unstained slides

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81450

NGHIS
618480

MayoComplete Histiocytic Neoplasms, Next-Generation Sequencing, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender or pink top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Whole blood Container/Tube: Preferred: Lavender or pink top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Additional Information: To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Paraffin-embedded tissue Container/Tube: Paraffin block Collection Instructions: 1. If available, send 1 representative hematoxylin and eosin-stained slide. 2. Minimum amount of tumor nuclei is 20%. 3. Required amount of tissue area is at least 25 mm(2). 4. Tissue should be fixed in 10% neutral-buffered formalin. Other fixatives are not acceptable. 5. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. Specimen Stability Information: Ambient Additional Information: If the quality of the biopsy specimen is poor or the target tumor cell population is below 20%, testing should not be ordered. Testing may be canceled if DNA requirements are inadequate. Acceptable: Specimen Type: Tissue slide Slides: 20 unstained slides Container/ Tube: Transport in plastic slide holders. Collection Instructions: 1. Send 20 unstained, nonbaked slides with 5-micron thick sections of tissue. 2. If available, also send 1 representative hematoxylin and eosin-stained slide. 3. Minimum amount of tumor nuclei is 20% 4. Required amount of tissue area is at least 25 mm(2) 5. Tissue should be fixed in 10% neutral-buffered formalin. Other fixatives are not acceptable. 6. Decalcified specimens (eg, bone marrow core biopsies) are not acceptable. Specimen Stability Information: Ambient Additional Information: 1. Testing may be canceled if resultant extracted DNA does not meet concentration requirements. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Frozen tissue Container/Tube: Plastic container Specimen Volume: 100 mg Collection Instructions: Freeze tissue within 1 hour of collection Specimen Stability Information: Frozen Additional Information: Testing may be canceled if resultant extracted DNA does not meet concentration requirements. Specimen Type: Body fluid Container/Tube: Sterile container Specimen Volume: 5 mL Collection Instructions: Specify the type of fluid being submitted. Specimen Stability Information: Refrigerated 14 days/Frozen 14 days Additional Information: Testing may be canceled if resultant extracted DNA does not meet concentration requirements. Specimen Type: Extracted DNA Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. Label specimen as extracted DNA and source of specimen 2. Indicate volume and concentration of DNA on label Specimen Stability Information: Frozen (preferred)/Refrigerated/Ambient Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a

specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood, bone marrow aspirate, body fluid: 0.5 mL; Frozen tissue: 50 mg; Extracted DNA: 100 microliters (mcL) at 20 ng/mcL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	14 days

CPT Code Information: 81450

POU2F
618483

POU2F3 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

AHPRU
618553

Antihypertension Panel, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	7 days

CPT Code Information: G0481; 80377 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance; ; ;

CDPCR
618554

Clostridioides difficile Toxin, PCR, Feces

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Clostridioides difficile toxin DNA is unlikely. Submit only 1 of the following specimens: Preferred: Specimen Type: Preserved feces Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of nonnutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S) Specimen Volume: Representative portion of feces; 5 mL Collection Instructions: 1. Collect fresh fecal specimen and submit in container with transport medium. 2. Within 2 hours of collection, place feces in preservative. Specimen Stability Information: Ambient (preferred) <5 days/Refrigerated <5 days Acceptable: Specimen Type: Unpreserved feces Supplies: -Stool container, Small (Random), 4 oz Random (T288) -Stool Collection Kit, Random (T635) Container/Tube: Fecal container Specimen Volume: Representative portion of feces Collection Instructions: Collect fresh fecal specimen and submit representative sample in fecal container. Specimen Stability Information: Refrigerated (preferred) <5 days/Frozen <5 days

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Varies	5 days

CPT Code Information: 87493

DMITO
618558

Mitochondrial DNA Deletion Heteroplasmy, ddPCR, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (Sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen

Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a tissue biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Muscle tissue biopsy Supplies: Muscle Biopsy Kit (T541) Specimen Volume: 20 to 80 mg Collection Instructions: Prepare and transport specimen per instructions in Muscle Biopsy Specimen Preparation Instructions. Specimen Stability Information: Frozen (preferred) <24 hours/Ambient <24 hours/Refrigerated <24 hours Additional Information: Specimens are preferred to be received within 24 hours of collection. Extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. Specimen Type: Snap frozen nerve tissue biopsy Collection Instructions: Prepare snap frozen tissue biopsy per surgical procedure Specimen Volume: 0.25 to 0.5 cm Specimen Stability Information: Frozen Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to

heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

VZIKM
618559

Zika Virus, IgM Antibody Capture ELISA, Serum

Specimen Requirements:

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	30 days

CPT Code Information: 86794

CRTFR
618560

Creatinine, Random, Urine (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see RLTE4 / Leukotriene E4, Random, Urine. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 5 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	30 days
	Refrigerated	30 days
	Ambient	14 days

CPT Code Information: 82570

DIS
618568

Human Leukocyte Antigens (HLA) Class I and II Disease Association Typing, Low Resolution, Blood

Specimen Requirements: Container/Tube: Yellow top (ACD solution A or B) Specimen Volume: 6 mL Collection Instructions: Send whole blood in original tube. Do not aliquot. Additional Information: Specimen acceptability is based on extracted DNA concentration and not sample age.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood ACD	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81370; 81376 x3;

H1083
618598

HIK1083 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

CSPMM
618626

Plasma Cell Myeloma Pre-Analysis Cell Sorting, Bone Marrow (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see NGPCM / MayoComplete Plasma Cell Myeloma, Next-Generation Sequencing, Varies. Container/Tube: Lavender or pink top (EDTA) or yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Minimum plasma cell percentage is 1%. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. 4. Label specimen as bone marrow. 5. Fresh specimen is required for this test, as testing is performed on sorted cells.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient	4 days

CPT Code Information: 88184-Flow Cytometry; first cell surface, cytoplasmic or nuclear marker; 88185 x 5-Flow Cytometry, additional cell surface, cytoplasmic or nuclear marker (each);

RAVMP
618645

Ravulizumab Monitoring Panel, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 1 mL in 2 separate plastic vials, each containing 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days
Serum Red	Frozen	14 days

CPT Code Information: 80299; 86161 ;

JAKFM
618647

JAK2 V617F Mutation Detection, Bone Marrow

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81270

CALFM
618654

CALR Mutation Analysis, Myeloproliferative Neoplasm (MPN), Bone Marrow

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81219

MPLFM
618661

MPL Exon 10 Mutation Detection, Bone Marrow

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 81339

ECMP
618696

Eculizumab Monitoring Panel, Serum

Specimen Requirements:

Specimen Minimum Volume: Serum: 1.25 mL total in 2 separate plastic vials containing 0.5 mL (ECULI) and 0.75 mL (EAH50)

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days
Serum Red	Frozen	14 days

CPT Code Information: 80299; 86161;

HIBAG
618715

Histoplasma and Blastomyces Antigen, Enzyme Immunoassay, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 87449

MSUSC
618716

Branched-Chain Amino Acids, Self-Collect, Blood Spot

Specimen Requirements: Supplies: Blood Spot Collection-Self Collect (T858) Container/Tube: Blood Spot Self Collection Card Specimen Volume: 2 Blood spots Collection Instructions: 1. Order test each time the patient is to collect a dried blood specimen at home and mail the specimen directly to Mayo Clinic Laboratories. 2. Order should be placed a minimum of 3 days prior to desired date of collection. 3. Enter patient's address information for each order created, including street address (post-office [PO] boxes

are not acceptable delivery locations), city, state abbreviation, ZIP (postal) code, country, and home phone number. 4. For each order, the Blood Spot Collection-Self Collect kit will be mailed directly to the patient for self-collection (delivery to a PO box will not occur). 5. For more information on how to collect blood spots, see the following: -How to Collect a Dried Blood Spot Sample via fingerstick. -Blood Spot Collection Instructions-Fingerstick -Blood Spot Collection Instructions-Fingerstick-Spanish

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Ambient (preferred)	59 days	FILTER PAPER
	Frozen	59 days	FILTER PAPER
	Refrigerated	59 days	FILTER PAPER

CPT Code Information: 0381U

IL6DX
618776

Interleukin-6, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	24 hours

CPT Code Information: 83529

SV40
618827

SV40 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double

mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

REVE2
618830

Erythrocytosis Evaluation, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD solution B) Specimen Volume: 5 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	7 days

CPT Code Information: 83020-26; 83020; 83021; 83789; 83068 (if appropriate); 82664 (if appropriate); 88184 (if appropriate);

CASHR
618845

Cashew, IgE with Reflex to Cashew Component, IgE, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

CASHX
618846

Cashew Component, IgE, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see CASHR / Cashew, IgE, with Reflex to Cashew Component, IgE, Serum Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86008

NUTHR
618847

Hazelnut-Food, IgE with Reflex to Hazelnut-Food Components, IgE, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

NUTHX
618848

Hazelnut-Food Components, IgE, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see NUTHR / Hazelnut-Food, IgE with Reflex to Hazelnut-Food Components, IgE, Serum. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003; 86008 x 3;

BLWRF
618849

Walnut-Food, IgE, with Reflex to Walnut-Food Components, IgE, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BLWX
618850

Walnut-Food Components, IgE, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see BLWRF / Walnut-Food, IgE, with Reflex to Walnut-Food Components, IgE, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL

(T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86008 x2

BRAZR 618851 Brazil Nut, IgE with Reflex to Brazil Nut Component, IgE, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

BRAZX 618852 Brazil Nut Component, IgE, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see BRAZR / Brazil Nut, IgE, with Reflex to Brazil Nut Component, IgE, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86008

CMVPV
618968

Cytomegalovirus (CMV) Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Body fluid Sources: Spinal, pleural, peritoneal, ascites, pericardial, amniotic, or ocular Container/Tube: Preferred: Sterile, screwcap, 5-mL aliquot tube Acceptable: Sterile container Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Upper respiratory tract fluid Sources: Nasopharyngeal aspirate or washing Container/Tube: Preferred: Sterile, screwcap, 5-mL aliquot tube Acceptable: Sterile container Specimen Volume: 1.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Swab Sources: Dermal, eye, nasal, saliva, throat, or genital Supplies: -Culturette (BBL Culture Swab) (T092) -M4-RT (T605) Container/Tube: Multimicrobe media (M4-RT, M4, M5, Bartels, or Jiangsu) and ESwab or Culturette Collection Instructions: Place swab back into multimicrobe media. Specimen Type: Tissue Sources : Brain, colon, kidney, liver, lung, etc. Supplies: M4-RT (T605) Container/Tube: Sterile container containing 1 mL to 2 mL of sterile saline or multimicrobe medium (M4-RT, M4, M5, Bartels, or Jiangsu) Specimen Volume: Entire collection Collection Instructions: Submit only fresh tissue. Specimen Type: Urine Container/Tube: Sterile container Specimen Volume: 1 mL Collection Instructions: Collect a random urine specimen. Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) Specimen Volume: 0.5 mL Collection Instructions: Send bone marrow in original tube. Do not aliquot.

Specimen Minimum Volume: Ocular Fluid, Spinal Fluid, or Urine: 0.3 mL; Body Fluid (pleural, peritoneal, ascites, pericardial): See Specimen Required; Upper respiratory tract specimens: (Nasopharyngeal aspirate or washing): 1 mL; Tissue: 2 x 2-mm biopsy

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87496

NCYB
618977

Recessive Congenital Methemoglobinemia, CYB5 and CYB5 Reductase Genetic Analysis, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a

bone marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

NHEM
618991

Hereditary Erythrocytosis Focused Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with whole blood testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Refrigerated (preferred) < 24 hours/Ambient < 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblast Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) < 24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur.

Specimen Minimum Volume: Whole blood: 1 mL; Skin biopsy, Cultured fibroblast: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81404; 81479; 81479 (if appropriate for government payers);

GNANT
619005

Antithrombin Deficiency, SERPINC1 Gene, Next-Generation Sequencing, Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

NHEP
619019

Hereditary Erythrocytosis Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with whole blood testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Refrigerated (preferred) < 24 hours/Ambient < 24

hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblast Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) < 24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur.

Specimen Minimum Volume: Whole blood: 1 mL; Skin biopsy, Cultured fibroblast: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81404; 81405; 81479; 81479 (if appropriate for government payers);

NHHA
619033

Hereditary Hemolytic Anemia Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

NENZ
619047

Red Blood Cell Enzyme Disorders Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

NMEM
619061

Red Blood Cell Membrane Disorders Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogeneic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405; 81479; 81479 (if appropriate for government payers);

NCDA
619075

Congenital Dyserythropoietic Anemia Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerate 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

GNF7
619089

Factor VII Deficiency, F7 Gene, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred) 24 hours/Ambient 24 hours Additional information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL Tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a

maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Acceptable: Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred)24 hours/Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Whole blood: 1 mL; Amniotic fluid: 10 mL; Other specimen types: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 88235-Amniotic fluid culture (if appropriate);

GNHMA
619103

Hemophilia A, F8 Gene, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with whole blood testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred) 24 hours/Ambient 24 hours Additional information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL Tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination,

Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) 24 hours/Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Blood: 1 mL; Amniotic fluid: 10 mL; Other specimen types: see Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81407; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 88235-Amniotic fluid culture (if appropriate); 81265-Maternal cell contamination (if appropriate);

GNHMB
619117

Hemophilia B, F9 Gene, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred) 24 hours/Ambient 24 hours Additional information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL Tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on

the maternal specimen. Specimen Type: Cultured chorionic vill Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) 24 hours/Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Blood: 1 mL; Amniotic fluid: 10 mL; Other specimen types: see Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81238; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 88235-Amniotic fluid culture (if appropriate); 81265-Maternal cell contamination (if appropriate);

GNF11
619131

Hemophilia C (Factor XI Deficiency), F11 Gene, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred) 24 hours/Ambient 24 hours Additional information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL Tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a

maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Acceptable: Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) 24 hours/Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Whole blood: 1 mL; Amniotic fluid: 10 mL; Other specimen types: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 88235-Amniotic fluid culture (if appropriate);

GNF13
619145

Factor XIII Deficiency, F13A1 and F13B Genes, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with whole blood testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred) 24 hours/Ambient 4 hours Additional information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL Tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens

must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) 24 hours/Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Blood: 1 mL; Amniotic fluid: 10 mL; Other specimen types: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 88235-Amniotic fluid culture (if appropriate); 81265-Maternal cell contamination (if appropriate);

GNFIB
619159

Congenital Fibrinogen Disorders, FGA, FGB, and FGG Genes, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with whole blood testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred) 24 hours/Ambient 24 hours Additional information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 2 to 3

weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Acceptable: Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) 24 hours/Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Blood: 1 mL; Amniotic fluid: 10 mL; Other specimen types: see Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 88235-Amniotic fluid culture (if appropriate); 81265-Maternal cell contamination (if appropriate);

GNPRC
619173

Protein C Deficiency, PROC Gene, Next-Generation Sequencing, Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

GNPRS
619187

Protein S Deficiency, PROS1 Gene, Next-Generation Sequencing, Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

GNVWD
619201

von Willebrand Disease, VWF and GP1BA Genes, Next-Generation Sequencing, Varies

Specimen Requirements: A previous bone marrow transplant from an allogenic donor will interfere with whole blood testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred) <24 hours/Ambient <24 hours Additional information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will

be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Blood: 1 mL; Amniotic fluid: 10 mL; Other specimen types: see Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81408; 81479; 81479 (if appropriate for government payers); 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 88235-Amniotic fluid culture (if appropriate); 81265-Maternal cell contamination (if appropriate);

GNADM 619229 Hereditary Thrombotic Thrombocytopenic Purpura, ADAMTS13 Gene, Next-Generation Sequencing, Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

GNBLF
619243

Bleeding Disorders, Focused Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred) 24 hours/Ambient 24 hours Additional information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL Tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Acceptable: Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) 24 hours/Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Blood: 1 mL; Amniotic fluid: 10 mL; Other specimen types: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81238; 81407; 81408; 81479; 81479 (if appropriate for government payers); 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 88235-Amniotic fluid culture (if appropriate); 81265-Maternal cell contamination (if appropriate);

GNBLC
619257

Bleeding Disorders, Comprehensive Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: 1. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Refrigerated (preferred) 24 hours/Ambient 24 hours Additional information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL Tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Acceptable: Specimen Type: Confluent cultured cells Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) 24 hours/Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: Blood: 1 mL; Amniotic fluid: 10 mL; Other specimen types: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate); 88235-Amniotic fluid culture (if appropriate); 81265-Maternal cell contamination (if appropriate);

GNTHR
619271

Thrombosis Disorders, Comprehensive Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

GNPLT
619285

Platelet Disorders, Comprehensive Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Refrigerated (preferred) 24 hours/Ambient 24

hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) 24 hours/Refrigerated 24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur.

Specimen Minimum Volume: Blood: 1 mL; Cultured fibroblasts/skin biopsy: see Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

GNMY9
619299

MYH9-Related Disorders, MYH9 Gene, Next-Generation Sequencing, Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

GNSPD
619327

Platelet Storage Pool Deficiency Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710.. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

GNHTC
619341

Hereditary Thrombocytopenia Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture

and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur.

Specimen Minimum Volume: Blood: 1 mL; Cultured fibroblasts/skin biopsy: see Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

GNPFD
619355

Platelet Function Defect Gene Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Specimen Type: Whole blood Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a bone marrow transplant, call 800-533-1710. Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days Additional Information: To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

AHLP
619372

AudioloGene Hearing Loss Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any

anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Refrigerated (preferred)/Ambient Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Container/Tube: T-25 Flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred)/Refrigerated (<24 hours) Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81430; 81431; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

CHLAP
619387

Chlamydia IgM and IgG Panel, Immunofluorescence, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	30 days

CPT Code Information: 86632 x 2; 86631 x 2;

CHLM
619388

Chlamydia IgM, Immunofluorescence, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.3 mL Collection Instructions: Centrifuge

and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	30 days

CPT Code Information: 86632 x 2

CHLG
619389

Chlamydia IgG, Immunofluorescence, Serum

Specimen Requirements: Specimen Required Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.3 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.15 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	30 days
	Frozen	30 days

CPT Code Information: 86631 x 2

VHPV
619401

Human Papillomavirus (HPV) Vaginal Detection with Genotyping for High-Risk Types by PCR

Specimen Requirements: Patient Preparation: For 24 hours prior to specimen collection, patients should not use carbomer-containing feminine hygiene products (eg, KY Jelly [Physician Formula], Vagisil creme regular strength). For additional information about carbomer-containing feminine hygiene products, including additional examples, see Cautions. Specimen Type: Vaginal Container/Tube: ThinPrep/PreservCyt solution vial Specimen Volume: 3 mL of solution in ThinPrep/PreservCyt vial Collection Instructions: 1. Obtain an adequate sampling from vagina using a sterile brush, broom, or spatula. 2. Rinse the collection device as quickly as possible into the PreservCyt Solution vial. 3. DISCARD THE COLLECTION DEVICE. 4. Place ThinPrep specimens in individual bags, as they tend to leak during transport. 5. Place labels on the vial and on the bag.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Vaginal	Ambient (preferred)	42 days
	Refrigerated	42 days

CPT Code Information: 87626; G0476 (if appropriate);

SC018
619408

Whole Blood

Specimen Requirements: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) or light-blue top (3.2% sodium citrate) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send specimen in original tube. Do not aliquot.

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	14 days
	Frozen	14 days
	Refrigerated	14 days

WNDZ
619409

Wilson Disease, ATP7B Full Gene Sequencing with Deletion/Duplication, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406

VZIKU
619431

Zika Virus, PCR, Molecular Detection, Random, Urine

Specimen Requirements: Container/Tube: Sterile container Specimen Volume: 1 mL Collection Instructions: 1. Collect random urine in a sterile container. 2. Label specimen as urine.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87662

VZIKS
619432

Zika Virus, PCR, Molecular Detection, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container: Sterile container Specimen Volume: 0.5 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot the serum into a sterile container. Additional Information: Serum specimens not aliquoted from the serum gel collection tube into a sterile container will be rejected.

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87662

MEF2B
619494

Myocyte Enhancer Factor 2 (MEF2B) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

TILAP
619510

Tilapia, IgE, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL for every 5 allergens requested Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: For 1 allergen: 0.3 mL More than 1 allergen: (0.05 mL x number of allergens) + 0.25 mL dead space

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

ALDG2
619516

Autoimmune Liver Disease Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86381; 86039; 86015; 86015-Titer (if appropriate);

CD200
619517

CD200 (OX2) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

DMAID
619537

Mycobacterium abscessus Complex Subspecies Identification, Next-Generation Sequencing

Specimen Requirements: Supplies: Infectious Container, Large (T146) Specimen Type: Mycobacterium abscessus isolate growing in pure culture Container/Tube: Preferred: Solid slant medium (eg. Middlebrook 7H10, 7H11 or Lowenstein Jensen agar) Acceptable: Broth medium (eg. Mycobacteria Growth Indicator Tube, 7H9 broth, BACT/ALERT MP or VersaTREK bottle). Note: Broth specimens will require subculture which will delay results. Specimen Volume: Solid slant medium: Isolate with visible growth Broth medium: Greater than or equal to 3 mL of broth culture Collection Instructions: 1. Organism must be in pure culture, actively growing. Do not submit mixed cultures. 2. Place specimen in a large infectious container and label as an etiologic agent/infectious substance.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87153

MTBXS
619564

Mycobacterium tuberculosis Complex, Molecular Detection and Rifampin Resistance, PCR, Sputum

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Mycobacterium tuberculosis DNA is unlikely. Specimen Type: Sputum (undigested) Container/Tube: Sterile container Specimen Volume: 3 mL Specimen Stability Information: Refrigerated (preferred) 7 days/Ambient 72 hours Additional Information: 1. If a single specimen is being shared between mycobacterial culture, acid-fast smear, and/or M tuberculosis PCR, a minimum volume of 3 mL for the respiratory specimen is required. Specimen volumes less than indicated may decrease sensitivity of testing. 2. If insufficient volume is submitted, testing will be canceled. Specimen Type: N-acetyl-L-cysteine/sodium hydroxide (NALC/NaOH)-digested sputum Container/Tube: Sterile container Specimen Volume: 3 mL Collection Instructions: 1. Submit digested specimen treated with NALC/NaOH. 2. Clearly indicate on container and order form that specimen is a digested specimen. Specimen Stability Information: Refrigerated 7 days Additional Information: 1. If a single specimen is being shared between mycobacterial culture, acid-fast smear, and/or M tuberculosis PCR, a minimum volume of 3 mL for the respiratory specimen is required. Specimen volumes less than indicated may decrease sensitivity of testing. 2. If insufficient volume is submitted, testing will be canceled.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Sputum	Refrigerated (preferred)	7 days
	Ambient	72 hours

CPT Code Information: 87564

HISGT
619586

Histone Genes Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirements for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4mm x 4mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens.. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with

a preferred total of 5000 nucleated cells or a minimum of at least 3000 nucleated cells. Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81445;

MCKCP 619595 MayoComplete Kidney Cancer Panel, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81457;

MCBPP
619604

MayoComplete Bladder and Prostate Cancer Panel, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred), or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual 81457

MCFRC 619613 MayoComplete Renal Cell Carcinoma with Fibromyomatous Stroma Panel, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Acceptable: Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a preferred total of 5000 nucleated cells, or a minimum of at least 3000 nucleated cells. Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81479; 81406; 81407; 81404; 81479 (if appropriate for government payers);

MCGYN 619622 MayoComplete Gynecological Cancer Panel, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of

tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81457;

MCECP 619631 MayoComplete Endometrial Carcinoma Panel, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1

Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a preferred total of 5000 nucleated cells, or a minimum of at least 3000 nucleated cells. Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81457;

MCOCP 619640 MayoComplete Ovarian, Fallopian Tube, and Peritoneal Cancer Panel, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells

(preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81457;

IDTRT
619649

IDH1, IDH2, and TERT Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 0481U;

TFH
619658

FH Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirements for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81405;

DICET
619667

DICER1 Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81479;

POLET
619676

POLE Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81407;

MYODT
619685

MYOD1 Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81479;

ALKT
619694

ALK Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the following slides: 1 slide stained with hematoxylin and eosin AND 10 unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred), or a minimum of 3000 nucleated cells. Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual 81479

NTRKM
619703

NTRK Genes Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirements for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81479;

SDHMP
619712

SDH Genes Mutation Analysis, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 216 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 15 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slide (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88381-Microdissection, manual; 81404; 81405 x2; 81406; 81479 (if appropriate for government payers);

PBPFD
619722

Lead Profile Occupational Exposure, Blood

Specimen Requirements: Both EDTA whole blood and heparin whole blood specimens are required. Patient Preparation: 1. High concentrations of gadolinium and iodine are known to potentially interfere with most inductively couple plasma mass spectrometry-based metal tests. If either gadolinium-

or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. 2. Patient should abstain from alcohol for 24 hours prior to specimen collection. Specimen Type: EDTA Whole blood Supplies: -Metal Free B-D Tube (EDTA), 6 mL (T183) -Metal Free EDTA 3 mL Tube (T989) -Microtainer (EDTA) Tube, 0.5 mL (T174) Container/Tube: Preferred: Royal blue-top BD vacutainer with EDTA blood collection tube (3 mL) (BD catalog no. 36777) (T989) Acceptable: Royal blue-top BD Vacutainer Plus with EDTA blood collection tube (6 mL) (BD catalog no. 368381) (T183) or BD Microtainer with EDTA (0.5 mL) (T174) Specimen Volume: 2 mL Collection Instructions: 1. See Metal Analysis Specimen Collection and Transport for complete instructions. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Refrigerate specimen as soon as possible after collection. Specimen Type: Heparin Whole blood Container/Tube: Preferred: Green top (Sodium heparin) Acceptable: Dark blue top (metal free heparin), green top (lithium heparin), or lavender top (EDTA) Specimen Volume: 4 mL Collection Instructions: Refrigerate specimen as soon as possible after collection.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated	7 days

CPT Code Information: 83655; 82542;

HIAAP
619735

5-Hydroxyindoleacetic Acid, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	60 days
	Refrigerated	72 hours

CPT Code Information: 83497

OPE
619736

Ova and Parasite, Travel History or Immunocompromised, Feces

Specimen Requirements: Patient Preparation: Specimen collection should be delayed for 7 to 10 days after administration of barium, bismuth, kaolin, magnesia, castor oil or mineral oil, and 2 to 3 weeks after antibiotics have been given since these may interfere with identification of protozoa. Specimen

Type: Preserved feces (Unpreserved specimens are not acceptable) Supplies: ECOFIX Stool Transport Vial (Kit) (T790) Container/Tube: Preferred: ECOFIX preservative Acceptable: 10% Buffered formalin AND zinc polyvinyl alcohol (Zn PVA) (one vial of each) Specimen Volume: Portion of stool: 2 g or 2 mL Collection Instructions: 1. Follow instructions on the container as follows: a. Place specimen into Ecofix preservative vial or one 10% formalin AND one Zn PVA preservative vial within 30 minutes of passage or collection. Refer to the fill line on the preservative vial. Do not fill above the line indicated on the container. b. Mix the contents of the tube with the spoon, twist the cap to close tightly, and shake vigorously until the contents are well mixed. Additional Information: 1. Stool placed in 10% buffered formalin can be accepted if accompanied by Zn PVA-preserved specimen; 10% buffered formalin-preserved specimens submitted without an accompanying Zn PVA-preserved specimen will be canceled. 2. Specimen submitted in low viscosity (LV)-PVA, mercury PVA or copper (Cu)-PVA will be rejected.

Specimen Minimum Volume: 5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Ambient (preferred)	21 days
	Refrigerated	21 days

CPT Code Information: 87177-Concentration (any type), for infectious agents; 87209-Smear, primary source with interpretation; complex special stain (eg, trichrome, iron hematoxylin) for ova and parasites;

ALPSG
619746

Autoimmune Lymphoproliferative Syndrome (ALPS) Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional

Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

BTKSG
619760

Bruton Tyrosine Kinase, BTK Full Gene Analysis, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406; 88233- Tissue culture, skin, solid tissue biopsy (if appropriate); 88240- Cryopreservation (if appropriate);

CFTRN
619774

Cystic Fibrosis Transmembrane Conductance Regulator, CFTR, Full Gene Analysis, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva

Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional

Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL Tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81223; 88233- Tissue culture, skin, solid tissue biopsy (if appropriate); 88240- Cryopreservation (if appropriate);

EBLPD
619788

Epstein Barr Virus (EBV) Susceptibility and Lymphoproliferative Disorders Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood

specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred)/Refrigerated (<24 hours) Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory, or equivalent, and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-

yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

GATAS
619802

GATA-Binding Protein 2, GATA2, Full Gene Analysis, Next-Generation Sequencing, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Refrigerated (preferred)/Ambient Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred)/Refrigerated (<24 hours) Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur.

Specimen Minimum Volume: Blood: 1 mL; Skin biopsy or cultured fibroblasts: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233- Tissue culture, skin, solid tissue biopsy (if appropriate); 88240- Cryopreservation (if appropriate);

HIESG
619816

Hyper-IgE Syndrome Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman

Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory, or equivalent, and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233- Tissue culture, skin, solid tissue biopsy (if appropriate); 88240- Cryopreservation (if appropriate);

HLHGP
619830

Primary Hemophagocytic Lymphohistiocytosis Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who

have received a hematopoietic stem cell transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical and Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory, or equivalent, and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions

(T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233- Tissue culture, skin, solid tissue biopsy (if appropriate); 88240- Cryopreservation (if appropriate);

IMMAU
619858

Inborn Errors of Immunity with Immune Dysregulation and Autoimmunity Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Refrigerated (preferred)/Ambient Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred)/Refrigerated (<24 hours) Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur.

Specimen Minimum Volume: Blood: 1 mL; Skin biopsy or cultured fibroblasts: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

SCCNP
619872

Severe Congenital and Cyclic Neutropenia Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Refrigerated (preferred)/Ambient Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred)/Refrigerated (<24 hours) Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur.

Specimen Minimum Volume: Blood: 1 mL; Skin biopsy or cultured fibroblasts: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233- Tissue culture, skin, solid tissue biopsy (if appropriate); 88240- Cryopreservation (if appropriate);

TELDP
619886

Telomere Biology Disorders Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. Call 800-533-1710 for instructions for testing patients who have received a bone marrow transplant. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Any

anticoagulant Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Refrigerated (preferred)/Ambient Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing, Chorionic Villi/Products of Conception/Tissue. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred)/Refrigerated (<24 hours) Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing, Chorionic Villi/Products of Conception/Tissue. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur.

Specimen Minimum Volume: Whole blood: 1 mL; Skin biopsy or cultured fibroblasts: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233- Tissue culture, skin, solid tissue biopsy (if appropriate); 88240- Cryopreservation (if appropriate);

VIRID
619900

Viral Susceptibility, Defects in Intrinsic and Innate Immunity, Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect

and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower quantity/quality of DNA yielded from blood spots, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If

applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

BAMRP
619919

Bile Acids Malabsorption Panel, Serum and Feces

Specimen Requirements:

Specimen Minimum Volume: Feces: See Specimen Required; Homogenized feces: 1 mL; Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen	30 days
Serum	Frozen (preferred)	90 days
	Refrigerated	72 hours
	Ambient	24 hours

CPT Code Information: 82542 x2

PN23M
619921

Streptococcus pneumoniae IgG Antibodies, 23 Serotypes, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into plastic vial

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86581

QHV6C 619924 Human Herpesvirus-6 A and B DNA Detection and Quantification, PCR, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Preferred: Aliquot tube Specimen Volume: 0.5 mL Collection Instructions: 1. Collect specimen from collection vial 2. 2. Do not centrifuge.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	7 days
	Ambient	24 hours

CPT Code Information: 87533

QHV6P 619925 Human Herpesvirus-6 A and B DNA Detection and Quantification, PCR, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Preferred: Plastic vial Acceptable: Screw-capped, sterile container Specimen Volume: 1 mL Plasma Collection Instructions: Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days
	Ambient	24 hours

CPT Code Information: 87533

FERR1
619953

Ferritin, Serum

Specimen Requirements:

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	365 days
	Ambient	24 hours

CPT Code Information: 82728

BRTP
619957

Rapid Hereditary Breast Cancer Treatment Decision Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva

Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81432

MT
619972

Metallothionein Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

SDLDL
619974

Small Dense Low Density Lipoprotein Cholesterol, Serum

Specimen Requirements: Patient Preparation: Fasting: 8 hours; required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Centrifuge and aliquot serum into a plastic vial. 2. Send frozen.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	30 days
	Refrigerated	72 hours
	Ambient	8 hours

CPT Code Information: 83722

HRTVC
620056

Heartland Virus, RNA, Molecular Detection, PCR, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: 1. Send specimen from collection vial 2. 2. Do not centrifuge or heat inactivate.

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	24 hours

CPT Code Information: 87798

HRTVS
620057

Heartland Virus, RNA, Molecular Detection, PCR, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container: Sterile container Specimen Volume: 0.5 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a sterile container. Additional Information: Serum specimens not aliquoted from the serum gel collection tube into a sterile container will be rejected.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	24 hours

CPT Code Information: 87798

IRF8
620064

Interferon Regulatory Factor 8 (IRF8) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

PDEIC
620067

Phosphodiesterase 10A (PDE10A) IgG, Tissue Immunofluorescence, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

PDEIS
620068

Phosphodiesterase 10A (PDE10A) IgG, Tissue Immunofluorescence, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

PDETC
620069

Phosphodiesterase 10A (PDE10A) IgG, Tissue Immunofluorescence Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

PDETS
620070

Phosphodiesterase 10A (PDE10A) IgG, Tissue Immunofluorescence Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

AUTOG
620092

Autoinflammatory Disorders Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Bone

marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerate 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical and Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory, or equivalent, and must be extracted from a specimen type listed as acceptable for this test

(including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

BCELL
620106

B-Cell and Antibody Deficiency Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical

or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerate 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233-Tissue culture, skin, solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

EOIBD
620120

Early Onset Monogenic Inflammatory Bowel Disease (IBD) Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1.Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2.A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical and Molecular Testing, Tissue. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be

required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions. 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800). Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory, or equivalent, and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233- Tissue culture, skin, solid tissue biopsy (if appropriate); 88240- Cryopreservation (if appropriate);

SCIDP
620134

Severe Combined Immunodeficiency (SCID) Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be

attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerate 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions

that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443; 88233- Tissue culture, skin, solid tissue biopsy (if appropriate); 88240- Cryopreservation (if appropriate);

BRBST
620148

Tickborne Bacterial, PCR and Sequencing, Blood

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Royal blue top (EDTA), pink top (EDTA), or sterile vial containing EDTA-derived aliquot Specimen Volume: 1 mL Collection Instructions: If not submitting in original vial, mix well before transferring to a sterile vial.

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 87801-Broad Range Bacterial PCR and Sequencing; 87798-Specimen Identification by PCR (if appropriate);

INFXP
620151

Infliximab Quantitation with Antibodies to Infliximab, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.2 mL Serum Collection Instructions: 1. Draw blood immediately before next scheduled dose (trough specimen).

2. Within 2 hours of collection, centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: INFX-80230; INXA -82397;

CARBI 620159 Carbapenem Resistance Genes, Molecular Detection, PCR, Varies

Specimen Requirements: The high sensitivity of amplification by polymerase chain reaction requires the specimen to be processed in an environment in which contamination of the specimen by Klebsiella pneumoniae carbapenemase (KPC), New Delhi metallo-beta-lactamase (NDM), Verona integron-encoded metallo-beta-lactamase (VIM), oxacillin-hydrolyzing beta-lactamase (OXA-48), and imipenemase-type metallo-beta-lactamase (IMP) DNA is not likely. Supplies: Infectious Container, Large (T146) Container/Tube: Slant Specimen Volume: Isolate Collection Instructions: 1. Perform isolation of infecting bacteria. 2. Bacterial organism must be submitted in pure culture, actively growing. Do not submit mixed cultures.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87183

QMPTS 620169 Monoclonal Protein Isotype, Quantitative, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see QMPSS / Monoclonal Protein Study, Quantitative, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 0077U

CRPCR 620176 Carbapenem Resistance Genes, Molecular Detection, PCR, Rectal Swab

Specimen Requirements: Specimen Type: Rectal/perirectal swab Supplies: Culturette (BBL Culture Swab) (T092) Container/Tube: Culture transport swab Specimen Volume: Entire collection

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Swab	Ambient	5 days

CPT Code Information: 87798

JAMLM 620194 Acute Myeloid Leukemia (AML), FISH, Bone Marrow

Specimen Requirements: Container/Tube: Green top (sodium heparin) or yellow top (ACD solution B) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 88377 (if 1 probe set); 88377 x 2 (if 2 probe sets); 88377 x 3 (if 3 probe sets); 88377 x 4 (if 4 probe sets); 88377 x 5 (if 5 probe sets); 88377 x 6 (if 6 probe sets); 88377 x 7 (if 7 probe sets);

GBACC 620231 Gamma-Amino Butyric Acid Type A (GABA-A) Receptor Antibody, Cell-Binding Assay, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Preferred: Collection vial number 1 Acceptable: Any collection vial Specimen Volume: 1 mL

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

GBACS 620232 Gamma-Amino Butyric Acid Type A (GABA-A) Receptor Antibody, Cell-Binding Assay, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.3 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

AMPIP
620247

Amyloid Protein Identification, Paraffin, Mass Spectrometry

Specimen Requirements: Specimen Type: Formalin-fixed or B5-fixed paraffin-embedded tissue block Collection Instructions: 1. Do not send fixed tissue slides for testing. Testing can only be done on paraffin-embedded tissue blocks. 2. If Congo red stain has already been performed, send Congo red stained slide along with the tissue block. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
AMYLOID	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88313; 82542 (if appropriate); 88380 (if appropriate);

MSFGN
620248

Fibrillary Glomerulonephritis Confirmation, Mass Spectrometry, Paraffin Tissue

Specimen Requirements: Supplies: Pathology Packaging Kit (T554) Specimen Type: Formalin-fixed or B5-fixed, paraffin-embedded tissue block Collection Instructions: 1. Do not send fixed tissue slides. Testing can only be done on paraffin-embedded tissue blocks. 2. Attach the green pathology address label included in the kit to the outside of the transport container.

Transport Temperature:

Specimen Type	Temperature	Time
AMYLOID	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 82542; 88380;

23FBG
620249

Fibroblast Growth Factor-23 (FGF23), In Situ Hybridization

Specimen Requirements: Specimen Type: Tissue Supplies: Pathology Packaging Kit (T554) Submit: Formalin-fixed, paraffin-embedded tissue block OR 5 Unstained, positively charged glass slides; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88365-Primary

RTQPC 620307 Abnormal Prion Protein, Real-Time Quaking Induced Conversion, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: CJDE / Creutzfeldt-Jakob Disease Evaluation, Spinal Fluid RPDE / Rapidly Progressive Dementia Evaluation, Spinal Fluid

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
CSF	Frozen (preferred)	28 days	BlueTop SARSTEDT
	Refrigerated	14 days	BlueTop SARSTEDT
	Ambient	12 hours	BlueTop SARSTEDT

CPT Code Information: 0584U

ADALP 620309 Adalimumab Quantitative with Antibody, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.4 mL Serum Collection Instructions: 1. Draw blood immediately before the next dose of drug administration (trough specimen). 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 80145; 83520;

QNADL
620310

Adalimumab Quantitative, Serum (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 80145

ABADL
620311

Adalimumab Antibody, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see ADALP / Adalimumab Quantitative Antibody, Serum. Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Draw blood immediately before the next dose of drug administration (trough specimen). 2. Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.35 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 83520

INTAD
620312

Adalimumab Panel, Interpretation (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days

CJDE
620374

Creutzfeldt-Jakob Disease Evaluation, Spinal Fluid

Specimen Requirements: Supplies: CJD/RPD Evaluation Kit (T966) Container/Tube: Preferred: 2 Sarstedt CSF False Bottom Tubes 63.614.625 (2.5 mL) Acceptable: Sarstedt 72.703.600 (1.5 mL) or Sarstedt 72.694.600 (2 mL) Specimen Volume: 2 tubes, each containing 1.5 mL to 2.5 mL Collection Instructions: 1. Perform lumbar puncture and discard the first 1 to 2 mL of cerebrospinal fluid (CSF). 2. Collect two tubes of CSF directly into an acceptable collection tube until the tube is at least 50% full. 3. Send CSF specimen in original collection tube. Do not aliquot. 4. Collection instructions can also be found on Spinal Fluid Specimen Collection Instructions for Creutzfeldt-Jakob Disease and Rapidly Progressive Dementia Evaluations (T974).

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
CSF	Frozen (preferred)	28 days	BlueTop SARSTEDT
	Refrigerated	14 days	BlueTop SARSTEDT
	Ambient	12 hours	BlueTop SARSTEDT

CPT Code Information: 0584U; 84393; 84394;

CJDEI
620375

Creutzfeldt-Jakob Disease Evaluation Interpretation, Spinal Fluid (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
CSF	Frozen (preferred)	28 days	BlueTop SARSTEDT
	Refrigerated	14 days	BlueTop SARSTEDT
	Ambient	12 hours	BlueTop SARSTEDT

RPDE
620376

Rapidly Progressive Dementia Evaluation, Spinal Fluid

Specimen Requirements: Supplies: CJD/RPD Evaluation Kit (T966) Container/Tube: Preferred: 2 Sarstedt CSF False Bottom Tubes 63.614.625 (2.5 mL) Acceptable: Sarstedt 72.703.600 (1.5 mL) or Sarstedt 72.694.600 (2 mL) Specimen Volume: 2 tubes; each containing 1.5 to 2.5 mL Collection Instructions: 1. Perform lumbar puncture and discard the first 1 to 2 mL of cerebrospinal fluid (CSF). 2. Collect two tubes of CSF directly into an acceptable collection tube until the tube is at least 50% full. 3. Send CSF specimen in original collection tube. Do not aliquot. Note: Polystyrene collection tubes are not acceptable. Exposure of CSF to polystyrene tubes may result in falsely low Abeta42 concentrations. The Alzheimer's Association consensus protocol for handling of CSF for clinical measurements of Abeta42 and tau recommends using the drip method for CSF collection and directly collecting into a low-bind polypropylene tube. Although some clinicians prefer the syringe pull method due to speed of collection, the drip method reduces the risk of Abeta42 binding to the plastic of any syringe used. 4. Collection instructions can also be found on Spinal Fluid Specimen Collection Instructions for Creutzfeldt-Jakob Disease and Rapidly Progressive Dementia Evaluations (T974).

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
CSF	Frozen (preferred)	28 days	BlueTop SARSTEDT
	Refrigerated	14 days	BlueTop SARSTEDT
	Ambient	12 hours	BlueTop SARSTEDT

CPT Code Information: 0584U; 82234; 84393; 84394;

RPDEI
620377

Rapidly Progressive Dementia Evaluation Interpretation, Spinal Fluid (Non-Orderable)

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
CSF	Frozen (preferred)	28 days	BlueTop SARSTEDT
	Refrigerated	14 days	BlueTop SARSTEDT
	Ambient	12 hours	BlueTop SARSTEDT

CONFL
620379

Pathology Consultation

Specimen Requirements: Additional Information: All specimens and additional paperwork must be labeled with: -Two patient identifiers (first and last name, date of birth, or medical record number) -Specimen type and anatomic site Supplies: MCF Pathology Packaging Kit (T994) Specimen Type: Tissue Container/Tube: Formalin fixed paraffin-embedded blocks, stained slides and/or unstained slides Note: Submit only pertinent hematoxylin and eosin (H and E) and all special stains relevant to the diagnostic questions for the case. Include positively charged unstained slides and/or a formalin-fixed, paraffin-embedded tissue block if it is anticipated that additional stains or ancillary testing may be necessary. Bone Marrow Case Specimen Requirements For information on collecting specimens, see Bone Marrow Core Biopsy, Clot, and Aspirate Collection Guideline. Specimen Type: Bone marrow aspirate Slides: 5 Preferred: Freshly prepared slides made at the time of specimen collection Acceptable: Slides made from EDTA specimen, within 2 hours of collection Submission Container/Tube: Plastic slide holder Specimen Type: Bone marrow aspirate clot Container/Tube: Bone marrow aspirate clot embedded in paraffin block Collection Instructions: Process and embed clot in paraffin Specimen Type: Bone marrow core biopsy Container/Tube: Fixed biopsy core embedded in paraffin block Collection Instructions: Process and embed core in paraffin.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
MMLDRY	Ambient	

CPT Code Information: 88321 (if appropriate); 88323 (if appropriate); 88325 (if appropriate);

ALKOT
620405

Anaplastic Lymphoma Kinase (ALK [OTI1A4]) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

HAVTA
620407

Hepatitis A Virus Total Antibodies, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg. hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	90 days
	Refrigerated	6 days
	Ambient	72 hours

CPT Code Information: 86708

RFCWT
620415

Renal Pathology Tissue Consultation, Wet Tissue

Specimen Requirements: Specimen Type: Tissue Supplies: Renal Biopsy Kit (T968) Source: Kidney Specimen Volume: Entire specimen Collection Instructions: Collect specimens according to the instructions in Renal Biopsy Preparation Instructions. Additional Information: Rush (same day as receipt) interpretation is available on Saturday and holidays for clinically emergent cases (eg, acute kidney failure, rapidly progressive glomerulonephritis, acute kidney allograft dysfunction) but requires advanced notification and approval by a Mayo Clinic Renal Pathologist 904-956-3318. To request RUSH service outside regular business hours, call 800-533-1710.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Kidney Biopsy	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88305 (If appropriate); 88348 (If appropriate); 88313 (If appropriate); 88346 (If appropriate); 88350 (If appropriate);

UHSD2
620554

Hemosiderin, Random, Urine

Specimen Requirements: Container/Tube: Plastic urine container Specimen Volume: 13 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 12 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	7 days
	Frozen	7 days
	Ambient	2 hours

CPT Code Information: 83070

PMAOG
620568

Postmortem Aortopathy Gene Panel, Tissue

Specimen Requirements: Specimen Type: Tissue (FFPE) Container/Tube: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block Additional Information: Testing will be attempted on blocks of any age but may be canceled if adequate DNA concentration cannot be obtained.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81410

PMARG 620582 Postmortem Arrhythmia Gene Panel, Tissue

Specimen Requirements: Specimen Type: Tissue (FFPE) Container/Tube: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block Additional Information: Testing will be attempted on blocks of any age but may be canceled if adequate DNA concentration cannot be obtained.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81439

PMCAG 620596 Postmortem Cardiomyopathy and Arrhythmia Gene Panel, Tissue

Specimen Requirements: Specimen Type: Tissue (FFPE) Container/Tube: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block Additional Information: Testing will be attempted on blocks of any age but may be canceled if adequate DNA concentration cannot be obtained.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81439

PMCMG 620610 Postmortem Cardiomyopathy Gene Panel, Tissue

Specimen Requirements: Specimen Type: Tissue (FFPE) Container/Tube: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block Additional Information: Testing will be attempted on blocks of any age but may be canceled if adequate DNA concentration cannot be obtained.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81439

PMHLH 620624 Postmortem Primary Hemophagocytic Lymphohistiocytosis (HLH) Gene Panel, Tissue

Specimen Requirements: Specimen Type: Tissue (FFPE) Container/Tube: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block Additional Information: Testing will be attempted on blocks of any age but may be canceled if adequate DNA concentration cannot be obtained.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81443

PCMSP 620638 Postmortem Inherited Congenital Myasthenia Syndrome Gene Panel, Tissue

Specimen Requirements: Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block. Additional Information: Testing will be attempted on blocks of any age but may be canceled if adequate DNA concentration cannot be obtained.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81443

NPMFM 620654 Nucleophosmin (NPM1) Mutation Analysis, Bone Marrow

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Bone Marrow	Refrigerated (preferred)	72 hours
	Ambient	72 hours

CPT Code Information: 81310

CCMVU 620658 Congenital Cytomegalovirus (cCMV), Molecular Detection, PCR, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Plastic sterile container, 5 mL Specimen Volume: 0.2 mL Collection Instruction: 1. Collect a random urine from a urine bag, container, or catheter. 2. Transfer urine to sterile container. 3. No preservative

Specimen Minimum Volume: 0.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen	72 hours

CPT Code Information: 87496

CCMVS
620659

Congenital Cytomegalovirus (cCMV), Molecular Detection, PCR, Saliva

Specimen Requirements: Supplies: BD UVT with mini tip flocked swab (T971) Collection Container/Tube: Flocked swab Submission Container/Tube: Sterile, screw-capped, tube containing viral transport media with flocked swab containing saliva. See Collection Instructions for acceptable media. Specimen Volume: 1 Swab in viral transport media Collection Instructions: 1. Collect a saliva specimen using a flocked swab per swab manufacturer instructions. 2. Place in a sterile, screw capped tube containing BD Universal Viral Transport Medium (UVT) (1 mL or 3 mL), Copan Universal Transport Medium (UTM) (1 mL or 3 mL), Remel M4-RT, Remel M4, or Remel M6.

Specimen Minimum Volume: Saliva swab submitted in minimum volume of 0.3 mL of viral transport media.

Transport Temperature:

Specimen Type	Temperature	Time
Swab	Frozen	7 days

CPT Code Information: 87496

CLD18
620665

Claudin 18 (CLDN18) (43-14A), Semi-Quantitative Immunohistochemistry, Manual

Specimen Requirements: This assay requires at least 50 tumor cells. Specimen Type: Tissue Supplies: Pathology Packaging Kit (T554) Submit: Formalin-fixed, paraffin-embedded tissue block OR 3 Unstained glass, "positively charged" slides with 4-microns formalin-fixed, paraffin-embedded tissue Additional Information: 1. One slide will be stained with hematoxylin and eosin and returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

OTP
620710

Orthopedia Homeobox Protein (OTP) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

SP100
620725

SP100 Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83516

GP210
620726

GP210 Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83516

AFOLR
620731

Folate Receptor Alpha (FOLR1), Semi-Quantitative Immunohistochemistry, Manual

Specimen Requirements: Specimen Type: Tissue Source: Ovarian tumor Supplies: Pathology Packaging Kit (T554) Submit: Formalin-fixed, paraffin-embedded tissue block OR 3 Unstained glass, "positively-charged" glass slides with 4-microns thick formalin-fixed, paraffin-embedded tissue Additional Information: 1. One slide will be stained with hematoxylin and eosin and returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

MMGEN
620733

Mycoplasma genitalium, Transcription-Mediated Amplification, Post-Prostatic Massage Fluid/Urine or Peritoneal Fluids

Specimen Requirements:

Specimen Minimum Volume: Peritoneal fluid: 1 mL; Post-prostatic massage fluid/urine (VBIII): See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Varies	APTIMA VIAL	

CPT Code Information: 87563

PBC2
620736

SP100 and GP210 Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.0 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83516 x 2

PBCPN
620737

Primary Biliary Cholangitis Antibody Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1.1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86039; 83516 x2; 86381;

BRIVA
620767

Brivaracetam, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Lavender top (K2 EDTA) Acceptable: Lavender top (K3 EDTA), green top (sodium or lithium heparin), light-blue top (sodium citrate) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Draw blood immediately before next scheduled dose. 2. For sustained-release formulations only, draw blood a minimum of 12 hours after last dose. 3. Within 2 hours of collection, centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

MSMN
620788

Membranous Nephropathy Target Antigen Identification, Mass Spectrometry, Tissue

Specimen Requirements: Specimen Type: Kidney tissue Supplies: Pathology Packaging Kit

(T554) Container/Tube: Formalin-fixed, paraffin-embedded tissue block Additional Information: Do not send fixed tissue slides. Testing can only be done on paraffin-embedded tissue blocks.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 82542; 88380;

HERMB
620800

HER2, Breast, Semi-Quantitative Immunohistochemistry, Manual with HER2 FISH Reflex

Specimen Requirements: Supplies: Pathology Packaging Kit (T554) Specimen Type: Preferred: A paraffin-embedded tissue block containing breast cancer tissue that has been fixed in 10% neutral buffered formalin within 1 hour from surgical collection time and for a total of 6 to 72 hours. Acceptable: 5 Unstained sections containing breast carcinoma on charged slides cut at 4 microns less than 1 month ago. Tissue on the slides should have been fixed in 10% neutral buffered formalin within 1 hour from surgical collection time and for a total of 6 to 72 hours. Container/Tube: Pathology Packaging Kit Collection Instructions: Submit paraffin-embedded invasive or metastatic breast carcinoma tissue. Additional Information: 1. According to the American Society of Clinical Oncology (ASCO)/College of American Pathologists (CAP) guidelines, HER2 protein immunohistochemical test results are only valid for nondecalcified, paraffin-embedded specimens fixed in 10% neutral buffered formalin within 1 hour from surgical collection time and for a total time of 6 to 72 hours. Delay to fixation, or under- or over-fixation may affect these results.(1) 2. HER2 immunohistochemistry testing on intracystic papillary carcinoma and solid papillary carcinoma, without clearly stating invasive carcinoma, is not appropriate and will be reported as indeterminate. 3. Paraffin blocks will be returned with final report.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

PSRCH
620808

Short Renal Clearance, Iohexol, Preparation

CPT Code Information: 36415 x2-Blood; 81050 x3-Urine; 96372-Injection; Q9961-Contrast dye;

ADNA1
620809

Double-Stranded DNA (dsDNA) Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.3 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86225

ADNAP
620812

Double-Stranded DNA (dsDNA) Antibodies Panel, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	21 days

CPT Code Information: ADNA1-86225; CRTHS-86255;

ADAMP
620815

ADAMTS13 Activity with Reflex Inhibitor Profile, Plasma

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	

CPT Code Information: 85397; 85335 (if appropriate);

ADAMS
620816

ADAMTS13 Activity Assay, Plasma

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	

CPT Code Information: 85397

ADMB
620817

ADAMTS13 Inhibitor Bethesda Titer, Plasma (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	

CPT Code Information: 85335

AADAM
620818

ADAMTS13 Profile Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see ADAMP / ADAMTS13 Activity with Reflex Inhibitor Profile, Plasma

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	

CVRNA
620888

Candida Vaginitis, Nucleic Acid Amplification RNA, Vaginal

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Vaginal	Refrigerated (preferred)	30 days	APTIMA VIAL
	Frozen	60 days	APTIMA VIAL
	Ambient	30 days	APTIMA VIAL

CPT Code Information: 87481

LBCS
620895

Labile Bound Copper, Serum

Specimen Requirements: Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for at least 96 hours. Supplies: -Metal Free Specimen Vial (T173) -Metal Free B-D Tube (No Additive), 6 mL (T184) Collection Container/Tube: 6-mL Plain, royal blue-top Vacutainer plastic trace element blood collection tube Submission Container/Tube: 7-mL Metal-free, screw-capped, polypropylene vial Specimen Volume: 0.75 mL serum Collection Instructions: 1. For complete instructions, see Metals Analysis Specimen Collection and Transport. 2. Allow the specimen to clot for 30 minutes; then centrifuge the specimen to separate serum from the cellular fraction. 3. Remove the stopper. Carefully pour specimen into metal-free, polypropylene vial, avoiding transfer of the cellular components of blood. Do not insert a pipet into the serum to accomplish transfer, and do not ream the specimen with a wooden stick to assist with serum transfer. 4. Freeze sample on dry ice immediately after pouring off the serum.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum	Frozen	28 days	METAL FREE

CPT Code Information: 82525

UBA1Q
620900

UBA1 Mutation Quantitative Detection, VEXAS syndrome, Droplet Digital PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD-B) or green top (heparin) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Stability: Refrigerated (preferred) 7 days/Ambient 7 days Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD-B) or green top (heparin) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability: Refrigerated (preferred) 7 days/Ambient 7 days Specimen Type: Extracted DNA from whole blood or bone marrow Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. DNA must be extracted from blood or bone marrow within 7 days of collection. 2. Label specimen as extracted DNA and source of specimen. 2. Provide volume and concentration of DNA. The minimum required volume 50 mcL at a concentration of 50 ng/mcL Specimen Stability: Frozen (preferred) 1 year/Refrigerate Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied.

Specimen Minimum Volume: Whole blood: 4 mL; Bone marrow: 2 mL; Extracted DNA: 50 mcL at 50 ng/mcL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Ambient	7 days

CPT Code Information: 81403

KITQ
620901

KIT p.Asp816Val Variant Analysis, Quantitative, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix. 2. Send specimen in original tube.

Do not aliquot. 3. Label specimen as blood. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix. 2. Send specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 14 days/Refrigerate 14 days Specimen Type: Extracted DNA Container/Tube: 1.5- to 2-mL tube Specimen Volume: Entire specimen Collection Instructions: 1. Label specimen as extracted DNA 2. Provide indication of volume of DNA. Specimen Stability Information: Frozen (preferred)/ Refrigerate/Ambient Additional Information: We cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed, and a charge will be applied. Specimen Type: Paraffin-embedded bone marrow aspirate clot Container/Tube: Paraffin block Specimen Stability Information: Ambient Specimen Type: Tissue (FFPE) Container/Tube: Paraffin block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block. Specimen Stability Information: Ambient Additional Information: Decalcified core biopsies are not accepted.

Specimen Minimum Volume: Blood, bone marrow: 1 mL; Extracted DNA: 50 mcL at 10 ng/mcL concentration; Paraffin block: 1 block

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81273

SAU
620916

Sialic Acid, Free and Total, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5mL (T914) Container/Tube: Plastic, 5-mL tube Specimen Volume: 1 mL Pediatric Volume: 0.5 mL Collection Instructions: Collect a random urine specimen (early morning preferred).

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	90 days
	Frozen	90 days

CPT Code Information: 84275

QMPSS
620919

Monoclonal Protein Study, Quantitative, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum total; 2 separate plastic vials, each containing 1 mL serum Collection Instructions: Centrifuge and aliquot serum into 2 plastic vials, each containing 1 mL

Specimen Minimum Volume: Serum: 2 Plastic vials, each containing 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 0077U; 82784 x 3;

SORD
620920

Sorbitol and Xylitol, Quantitative, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 2 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative. 3. Refrigerate immediately.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 82542

MSCSF
620941

Bacteria, Virus, Fungus, and Parasite Metagenomic Sequencing, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 2 mL Collection Instructions: 1. Masks should be worn by those collecting and processing specimens for this assay. 2. Handle all vials under sterile technique when open to the air. 3. A separate collection vial of CSF is preferred. 4. Submit specimen from collection vial 2, 3, or 4, as specimens from vial 1 are not acceptable. 5. Indicate on the label which vial is being submitted. 6. Do not centrifuge or heat inactivate. 7. Shunt fluid and ventricular fluid specimens are not acceptable.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	21 days
	Refrigerated	7 days

CPT Code Information: 0480U

PHEPU
620973

Previous Viral Hepatitis (Unknown Type), Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel (red-top tubes are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 2.6 mL Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot 1.8 mL serum into a plastic vial and ship frozen (preferred).

Specimen Minimum Volume: 1.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Frozen (preferred)	84 days
	Refrigerated	6 days

CPT Code Information: 86704; 86706; 86708; 86803; 87340; 87341 (if appropriate); 87522 (if appropriate);

WBGDR
620975

Beta-Globin Gene Cluster Deletion/Duplication, Blood (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -HAEV1 / Hemolytic Anemia Evaluation, Blood -HBEL1 / Hemoglobin Electrophoresis Evaluation, Blood -MEV1 / Methemoglobinemia Evaluation, Blood -REVE2 / Erythrocytosis Evaluation, Blood -THEV1 / Thalassemia and Hemoglobinopathy Evaluation, Blood and Serum

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated	

CPT Code Information: 81363-HBB (hemoglobin, beta, beta-globin) (eg, beta thalassemia), duplication/deletion analysis

WBGDD
620979

Beta-Globin Gene Cluster, Deletion/Duplication, Varies

Specimen Requirements: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send specimen in the original tube. Do not aliquot. Specimen Stability Information: Refrigerated (preferred)/Ambient

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81363-HBB (hemoglobin, beta, beta-globin) (e.g. beta thalassemia), duplication/deletion analysis

AGDD
620985

Alpha Globin Cluster Locus Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability

Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Prenatal Specimens Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Confluent cultured amniocytes Container/Tube: T-25 flask Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured amniocytes from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume:
See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81269; 88235-Tissue culture for amniotic fluid (if appropriate); 88240-Cryopreservation (if appropriate) ; 81265-Comparative analysis using Short Tandem Repeat (STR) markers; patient and comparative specimen (eg, pre-transplant recipient and donor germline testing, post-transplant non-hematopoietic recipient germline [eg, buccal swab or other germline tissue sample] and donor testing, twin zygosity testing or maternal cell contamination of fetal cells (if appropriate);

CRUZI
621062

Trypanosoma cruzi (Chagas) Antibody Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86753 x2

TROP2
621064

Trophoblast Antigen 2 (TROP2) Immunostain, Semi-Quantitative Immunohistochemistry, Manual

Specimen Requirements: Specimen Type: Tissue Supplies: Pathology Packaging Kit (T554) Submit: Formalin-fixed, paraffin-embedded tissue block OR 3 Unstained glass, "positively charged" slides with 4-microns formalin-fixed, paraffin-embedded tissue Additional Information: 1. One slide will be stained with hematoxylin and eosin and returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

KM55
621066

Galactose Deficient IgA1 (KM55) Immunostain, Technical

Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

MYGLS
621090

Myoglobin, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 83874

DMNES
621103

Peripheral Nervous System Demyelinating Neuropathy, Autoimmune Evaluation, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, specimen collection is recommended to occur before starting immunosuppressant medication or intravenous immunoglobulin (IVIg) treatment. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 3 mL

Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 83516 x5; 83520; 86255 x2; 83520 x4 (if appropriate);

GQ1ES
621107

Ganglioside GQ1b Antibody, IgG, ELISA, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, specimen collection is recommended to occur prior to initiation of immunosuppressant medication or intravenous immunoglobulin treatment. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 83516

GAES
621108

Ganglioside Antibodies Evaluation, Serum

Specimen Requirements: Patient Preparation: For optimal antibody detection, specimen collection is recommended to occur prior to initiation of immunosuppressant medication or intravenous immunoglobulin treatment. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 83516 x5; 83520 x4 (if appropriate);

NSAIP 621136 Neurosyphilis IgG Antibody Index with VDRL, Serum and Spinal Fluid

Specimen Requirements: Both spinal fluid (CSF) and serum are required for this test. CSF and serum must be collected within a maximum of 24 hours of each other. Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 2.2 mL Collection Instructions: 1. The spinal fluid (CSF) specimen must be collected within 24 hours of the serum specimen, preferably at the same time. 2. The CSF aliquot should be from the second, third, or fourth CSF vial collected during the lumbar puncture. Do not submit CSF from the first vial due to the possibility of blood contamination, which will cause specimen rejection. 3. Label vial as spinal fluid or CSF. 4. Band CSF specimen together with the serum sample. Specimen Type: Serum Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2.2 mL Serum Collection Instructions: 1. Within 24 hours of collection of the spinal fluid specimen, a serum specimen must also be collected, preferably at the same time. 2. Centrifuge and aliquot serum into a plastic vial. 3. Label tube as serum. 4. Band serum specimen together with the CSF sample.

Specimen Minimum Volume: Spinal fluid/Serum: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	10 days
	Frozen	10 days
Serum	Refrigerated (preferred)	10 days
	Frozen	10 days

CPT Code Information: 86780; 82784 x 2-(if appropriate); 82040-(if appropriate); 86780 x 2-(if appropriate); 82042-(if appropriate)); 86593-(if appropriate);

NSAI 621141 Neurosyphilis IgG, Antibody Index, Spinal Fluid (Non-

Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see NSAIP / Neurosyphilis IgG Antibody Index with VDRL, Serum and Spinal Fluid. Both spinal fluid (CSF) and serum are required for this test. CSF and serum must be collected within a maximum of 24 hours of each other. Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 2.2 mL Collection Instructions: 1. The CSF specimen must be collected within 24 hours of the serum specimen, preferably at the same time. 2. The CSF aliquot should be from the second, third, or fourth CSF vial collected during the lumbar puncture. Do not submit CSF from the first vial due to the possibility of blood contamination, which will cause specimen rejection. 3. Label vial as spinal fluid or CSF. 4. Band CSF specimen together with the serum sample. Specimen Type: Serum Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2.2 mL Serum Collection Instructions: 1. Within 24 hours of collecting the spinal fluid specimen, a serum specimen must also be collected, preferably at the same time. 2. Centrifuge and aliquot serum into a plastic vial. 3. Label tube as serum. 4. Band serum specimen together with the CSF sample.

Specimen Minimum Volume: Spinal fluid/Serum: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	10 days
	Frozen	10 days

CPT Code Information: 82784 x 2; 82040; 86780 x 2; 82042;

ADMI
621149

ADAMTS13 Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see ADAMP / ADAMTS13 Activity with Reflex Inhibitor Profile, Plasma.

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	

SESPF
621157

Sesame Seed, IgE, with Reflex to Sesame Seed Component, IgE, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic

vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 86003

PERA
621166

Preeclampsia sFlt-1/PlGF (Soluble fms-Like Tyrosine Kinase 1/ Placental Growth Factor) Ratio, Serum

Specimen Requirements: Patient Preparation: For 24 hours before specimen collection, the patient should not receive intravenous heparin. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	180 days
	Refrigerated	24 hours

CPT Code Information: 0482U

HISER
621213

Histoplasma Antibody Complement Fixation and Immunodiffusion, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.1 mL Serum Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86698 x2

HICSF
621216

Histoplasma Antibody Complement Fixation and Immunodiffusion, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: Submit specimen from collection vial number1.

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86698 x2

UHBAG
621248

Histoplasma and Blastomyces Antigen, Enzyme Immunoassay, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot tube, 5 mL (T914) Container/Tube: Plastic vial Specimen Volume: 3 mL Collection Instructions: 1. Collect a random urine specimen, with no preservative. 2. Do not centrifuge to remove particulates.

Specimen Minimum Volume: 2.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 87449

RISA
621304

Risankizumab, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Draw blood immediately before the next scheduled dose (trough specimen). 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

HIBC
621305

Histoplasma/Blastomyces Panel, Spinal Fluid

Specimen Requirements: Container/Tube: Sterile vial Specimen Volume: 1.5 mL Collection Instructions: Submit specimen from collection vial number 1.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86698 x2; 86612;

T3FR
621321

T3 (Triiodothyronine), Free, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days

CPT Code Information: 84481

WESPR
621326

Panel to Whole Exome Sequencing Reflex Test, Varies

Specimen Requirements: For most patients, a new specimen submission will not be required. Testing can be performed using stored DNA from the original whole exome sequencing test. To order testing on the stored specimen, see Additional Testing Requirements. Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to

lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81417-Patient only; 81417, 81416-Patient and one family member comparator sample (duo) (as appropriate); 81417, 81416 x 2-Patient and two family member comparator samples (trio or non-traditional trio) (as appropriate); 81417, 81416 x 3-Patient and three family member comparator samples (quad) (as appropriate);

WAGDR
621361

Alpha Globin Cluster Locus Deletion/Duplication, Blood

Specimen Requirements: Patient Preparation: A previous bone marrow transplant from an allogeneic donor will interfere with testing. For instructions for testing patients who have received a bone

marrow transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Blood: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81269

EBVAB
621373

Epstein-Barr Virus Antibody Profile, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Refrigerated	48 hours

CPT Code Information: 86664-EBNA; 86665 x 2-VCA, IgG and IgM;

EAEBV
621374

Epstein-Barr Virus Early Antigen, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Refrigerated	48 hours

CPT Code Information: 86663

HDVQU
621375

Hepatitis D Virus RNA Detection and Quantification, Real-Time RT-PCR, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2.2 mL Collection Instructions: 1. Centrifuge blood collection tube per collection tube manufacturer's instructions (eg, centrifuge within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot serum into plastic vial.

Specimen Minimum Volume: 1.0 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Serum SST	Frozen (preferred)	35 days	ALIQUOT TUBE
	Refrigerated	5 days	ALIQUOT TUBE

CPT Code Information: 87523

AATTA
621379

Antithrombin Summary Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see AATTF / Antithrombin Activity, with Reflex to Antithrombin Antigen, Plasma.

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

SFEC
621385

Iron and Total Iron-Binding Capacity, Serum

Specimen Requirements: Patient Preparation: 1. Fasting: 8 hours, preferred but not required 2. For

24 hours before collection, patient should not take iron-containing supplements. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Draw blood before noon (preferred). 2. Within 2 hours of collection, serum gel tubes should be centrifuged. 3. Within 2 hours of collection, red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	180 days

CPT Code Information: 83540-Iron; 83550-Iron-binding capacity;

RURC1
621395

Uric Acid/Creatinine Ratio, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 84560; 82570;

MAGRU
621396

Magnesium/Creatinine Ratio, Random, Urine

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Plastic urine container Submission Container/Tube: Plastic, 5-mL tube or a clean, plastic aliquot container with no metal cap or glued insert Specimen Volume: 4 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 83735; 82570;

RSBV
621403

Rare Subepithelial Autoimmune Blistering Disease Variants, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 86255

MP1BC
621405

Microtubule-Associated Protein 1B (MAP1B) Antibody, Immunoblot, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MAC1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 84182

MP1BS
621406

Microtubule-Associated Protein 1B (MAP1B) Antibody, Immunoblot, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -AIAES / Axonal Neuropathy, Autoimmune/Paraneoplastic Evaluation, Serum -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -DYS2 / Dysautonomia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum -GID2 / Gastrointestinal Dysmotility, Autoimmune/Paraneoplastic Evaluation, Serum -MAS1 / Myelopathy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: Serum:1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 84182

MECPI
621419

Methicillin Resistance Gene, Molecular Detection, PCR, Varies

Specimen Requirements: Supplies: Infectious Container, Large (T146) Container/Tube: Agar slant or other appropriate media Specimen Volume: Organism in pure culture Collection Instructions: 1. Perform isolation of bacteria. 2. Organism must be in pure culture, actively growing. Do not submit mixed cultures.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87641

RFPN
621421

Rheumatoid Factor Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	48 hours

CPT Code Information: 86431 x2

NAACD
621423

N-Acetylaspartic Acid, Canavan Disease, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 10 mL Pediatric: If insufficient collection volume, submit as much specimen as possible in a single container; the laboratory will determine if volume is sufficient for testing. Collection Instructions: 1. Collect a random urine specimen (first morning void preferred). 2. No preservative.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	90 days
	Refrigerated	90 days
	Ambient	14 days

CPT Code Information: 83921

AACYL
621427

Aminoacylase-1 Deficiency, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Plastic, 10-mL urine tube Specimen Volume: 10 mL Pediatric: If insufficient collection volume, submit as much specimen as possible in a single container; the laboratory will determine if volume is sufficient for testing. Collection Instructions: 1. Collect a random urine specimen (first morning void preferred). 2. No preservative.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	90 days
	Refrigerated	60 days

CPT Code Information: 82542

BVRNA
621435

Bacterial Vaginosis, Nucleic Acid Amplification, Vaginal

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Vaginal	Refrigerated (preferred)	30 days	APTIMA VIAL
	Frozen	60 days	APTIMA VIAL
	Ambient	30 days	APTIMA VIAL

CPT Code Information: 81513

CSMOF
621483

Controlled Substance Monitoring Panel, 11 Drug Classes, Screen Only, Immunoassay, Oral Fluid

Specimen Requirements: Patient Preparation: 1. If the patient has recently taken an oral medication or used an inhaled medication, wait 2 hours before collecting the specimen. 2. Patient must

empty mouth of any gum, food, or tobacco prior to oral fluid collection. If patient's mouth is not empty immediately before collection, have them rinse their mouth with water (up to 4 oz) and wait 10 minutes before collection. The patient may discard or drink the water after rinsing. Supplies: Quantisal Oral Fluid Collection Device (T980) Note: Check expiration date on Quantisal packaging Container/Tube: Quantisal collection device Specimen Volume: 1 mL Collection Instructions: 1. Review detailed instructions before specimen collection. -Patient video: Oral fluid specimen collection for controlled substance monitoring. -Practitioner video: Oral fluid specimen collection for controlled substance monitoring -Printable instructions: Oral Fluid Specimen Collection Instructions for Controlled Substance Monitoring. 2. Peel open package and remove collector using its handle. Do not touch the collection pad with fingers before or after specimen collection. To expedite the collection process, move tongue side to side to accumulate saliva in mouth before starting. Keep the tip of the device pointed down. 3. Position collector under tongue and close mouth. Keep head down to allow gravity to help with saliva collection. Important: Do not chew on pad, talk, or remove collector from mouth until indicator turns BLUE, or until 10 minutes has passed, whichever occurs first. 4. Hold transport tube in an upright position and uncap by pushing up with thumbs. Do not stand tube on table. Do not spill or empty the liquid from tube. 5. Insert collector into the uncapped transport tube and replace cap. Do not place collector back in mouth after it has been placed in the transport tube. 6. Snap cap firmly for transport. Place center of specimen seal on top of tube and press down both sides. 7. Complete paperwork and send sample to laboratory. 8. Send in original tube. Do not aliquot.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Fluid	Ambient (preferred)	7 days
	Frozen	28 days
	Refrigerated	7 days

CPT Code Information: 80307

LLTOT
621505

Leukemia and Lymphoma Immunophenotyping, Technical Only, Tissue

Specimen Requirements: Submit 1 of the following specimens: Preferred Specimen Type: Tissue Supplies: Hank's Solution (T132) Container/Tube: Sterile container with 15 mL of tissue culture medium (eg, Hank's balanced salt solution, RPMI, or equivalent) Specimen Volume: 5 mm(3) or larger biopsy Collection Instructions: 1. Place tissue into a sterile container with 15 mL of tissue culture medium (eg, Hank's balanced salt solution, RPMI, or equivalent). 2. Send intact specimen (do not mince). 3. Specimen cannot be fixed. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days Acceptable Specimen Type: Fine needle aspirate (FNA) Supplies: Hank's Solution (T132) Container/Tube: Sterile container with 15 mL of tissue culture medium (eg, Hank's balanced salt solution, RPMI, or equivalent) Specimen Volume: Entire collection Collection Instructions: 1. Collect FNA and transfer entire collection into a sterile container with 15 mL of tissue culture medium (eg, Hank's balanced salt solution, RPMI, or equivalent). 2. Send intact specimen (do not mince). 3. Specimen cannot be fixed. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days

Specimen Minimum Volume: Tissue: 1 mm(3); Fine needle aspirate: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Refrigerated (preferred)	
	Ambient	

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker x 1; 88185-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each); Additional CPTs may be added if consultative help is needed with the case, or algorithm dictates Mayo consultant involvement.; 88187-Flow Cytometry Interpretation, 2 to 8 Markers (if appropriate); 88188-Flow Cytometry Interpretation, 9 to 15 Markers (if appropriate); 88189-Flow Cytometry Interpretation, 16 or More Markers (if appropriate);

AC1Q
621511

Anti-C1q Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83520

IEICP
621519

Inborn Errors of Immunity Comprehensive Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing

may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical and Molecular Testing, Tissue. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical and Molecular Testing, Tissue. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerate 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions. 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800). Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report.

Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory, or equivalent, and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

COMID 621533 Combined Humoral and Cell-Mediated Immunodeficiency Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical and Molecular Testing, Tissue. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube:

T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical and Molecular Testing, Tissue. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerate 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions. 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory, or equivalent, and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81443

AECDP
621547

Angioedema and Complement Disorders Gene Panel, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

BMFGP
621561

Inherited Bone Marrow Failure Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing

can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerate 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81441

PHCGD
621575

Phagocytic Disorders and Chronic Granulomatous Disease Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical and Molecular Testing, Tissue. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical and Molecular Testing, Tissue. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Label specimen as bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerate 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume

must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions. 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777). 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800). Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory, or equivalent, and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81223; 81249; 81479; 81479 (if appropriate for government payers);

IPFGP
621589

Idiopathic Pulmonary Fibrosis Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from

an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical and Molecular Testing, Tissue. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy from another laboratory. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2.A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical and Molecular Testing, Tissue. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory, or equivalent, and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1.Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2.To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper

at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479

LAGGN
621630

Granulocyte Antibody Screen, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial. Additional Information: Only a specimen collected before a transfusion reaction is acceptable.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	30 days
	Frozen	365 days
	Ambient	7 days

CPT Code Information: 86021 x2

PT217
621635

Phospho-Tau 217, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic screw-top vial Specimen Volume: 0.6 mL plasma Collection Information: Centrifuge and aliquot plasma into plastic vial. Do not submit in original tube.

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
EDTA Plasma	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	72 hours

CPT Code Information: 84393

LFRI
621644

Progentec aiSLE DX Lupus Flare Risk Index, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Yellow top (ACD solution A) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Plasma Collection Instructions: 1. Centrifuge at 1500 x g for 20 minutes. 2. Aliquot plasma into plastic vial. 3. Freeze specimen within 2 hours of collection. Note: Critical frozen. Separate specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	74 days

CPT Code Information: 0447U

LDAI
621645

Progentec aiSLE DX Lupus Disease Activity Index, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Yellow top (ACD solution A) Submission Container/Tube: Plastic vial Specimen

Volume: 1 mL Plasma Collection Instructions: 1. Centrifuge at 1500 x g for 20 minutes. 2. Aliquot plasma into plastic vial. 3. Freeze specimen within 2 hours of collection. Note: Critical frozen. Separate specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	74 days

CPT Code Information: 0446U

LCYP
621646

Cytokine Panel, 13 Analytes, Quantitative, Serum

Specimen Requirements: Collection Container/Tube: Serum gel or red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. As soon as possible and within 2 hours of collection, centrifuge and aliquot 1 mL of serum into a plastic vial. 2. Send frozen. Note: Critical frozen. Separate specimens must be submitted when multiple tests are ordered.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	30 days

CPT Code Information: 83520 x 12; 83529;

C2NAD
621651

PrecivityAD, Plasma

Specimen Requirements:

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	

CPT Code Information: 0412U

C2AD2
621652

PrecivityAD2, Plasma

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	

CPT Code Information: 0503U

AD2AR
621654

PrecivityAD2, Reflex to Apolipoprotein E, Plasma

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen	

CPT Code Information: 0503U

JIP
621699

Joint Infection Panel, PCR, Synovial Fluid

Specimen Requirements: Specimen Type: Synovial fluid Container/Tube: Sterile vial Specimen Volume: 1 mL Collection Instructions: 1. Do not process or treat sample in any way. 2. Label specimen as synovial fluid.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Synovial Fluid	Refrigerated (preferred)	7 days
	Ambient	4 hours

CPT Code Information: 87627

C341Q
621739

Complement C3 and C4 with Anti-C1q Antibodies, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Minimum Volume: 0.9 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	21 days

CPT Code Information: 86160 x2; 83520;

BARQ
621751

BCR::ABL1, Rare Fusion Monitoring, Quantitative, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 10 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood. Specimen Type: Bone marrow Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: Whole blood: 8 mL; Bone marrow: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	5 days	PURPLE OR PINK TOP/EDTA
	Ambient	72 hours	PURPLE OR PINK TOP/EDTA

CPT Code Information: 81208; ; BADX: 81206, 81207, 81208 (if appropriate); BA190: 81207 (if appropriate); BCRAB: 81206 (if appropriate);

P210M
621761

BCR::ABL1, p210, mRNA Detection, Reverse Transcription-PCR (RT-PCR), Quantitative, Monitoring Chronic Myeloid Leukemia (CML), Bone Marrow

Specimen Requirements: Container/Tube: Preferred: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix bone marrow. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Bone Marrow	Refrigerated (preferred)	72 hours	PURPLE TOP/EDTA
	Ambient	72 hours	PURPLE TOP/EDTA

CPT Code Information: 81206-BCR::ABL1 (t[9;22]) (eg, chronic myelogenous leukemia) translocation analysis; major breakpoint, qualitative or quantitative

HBAGQ
621764

Hepatitis B Virus Surface Antigen, Quantitative, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	28 days
	Refrigerated	14 days
	Ambient	7 days

CPT Code Information: 87467

HBCRQ
621765

Hepatitis B Virus Core-Related Antigen, Quantitative, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	28 days
	Refrigerated	14 days
	Ambient	7 days

CPT Code Information: 82397

CMVLR
621770

Cytomegalovirus (CMV) Molecular Detection, PCR, Lower Respiratory

Specimen Requirements: Specimen Type: Lower respiratory Source: Bronchial washing, bronchoalveolar lavage, fluid/washings from lung, sputum, tracheal secretions, tracheal aspirates Container/Tube: Preferred: Sterile, screwcap, 5-mL aliquot tube Acceptable: Sterile container Specimen Volume: 1 mL Collection Instructions: Do not centrifuge.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87496

MNLCP
621773

Microdissection, Laser Capture, Membranous Nephropathy (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88380

MSMNT
621774

Mass Spectrometry, Membranous Nephropathy, Technical Component (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 82542

MITAN
621811

Mitotane, Plasma

Specimen Requirements: Collection Container/Tube: Green top (sodium heparin) (Lithium heparin and PST/plasma gel tubes are not acceptable.) Submission Container/Tube: Plastic vial Specimen

Volume: 1 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot plasma into plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Heparin	Refrigerated (preferred)	21 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 80299

RISAP
621813

Risankizumab Quantitation with Antibodies, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Draw blood immediately before next scheduled dose (trough specimen). 2. Within 2 hours of collection, centrifuge, and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 80299; 82397;

CMVAB
621833

Cytomegalovirus Antibody, IgM and IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 86645-Cytomegalovirus IgM; 86644-Cytomegalovirus IgG;

CMVMS
621834

Cytomegalovirus Antibody, IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 86645

CMVGS
621835

Cytomegalovirus Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	180 days
	Ambient	7 days

CPT Code Information: 86644

TXPAB
621836

Toxoplasma gondii Antibody, IgM and IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	90 days
	Ambient	72 hours

CPT Code Information: 86778-Toxoplasma IgM; 86777-Toxoplasma IgG;

TXPM
621837

Toxoplasma gondii Antibody, IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	90 days
	Ambient	72 hours

CPT Code Information: 86778

TXPG
621838

Toxoplasma gondii Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	90 days
	Ambient	72 hours

CPT Code Information: 86777

TGOGF
621841

TGFBR3 (1p22), OGA (10q24) Rearrangement, FISH, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tumor tissue block. Blocks prepared with alternative fixation methods may be acceptable; provide fixation method used. Additional Information: 1. Paraffin-embedded specimens can be from any anatomic location (skin, soft tissue, lymph node, etc). 2. Bone specimens that have been decalcified will be attempted for testing, but the success rate is approximately 50%. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin stained and 6 unstained Collection Instructions: Submit 1 slide stained with hematoxylin and eosin and 6 consecutive unstained, positively charged, unbaked slides with 5 micron-thick sections of the tumor tissue. Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: Slides: 1 Hematoxylin and eosin stained and 2 unstained

Transport Temperature:

Specimen Type	Temperature	Time
Tissue	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88291 DNA probe, each (first probe set), Interpretation and report; 88271x2-DNA probe, each; each additional probe set (if appropriate); 88271-DNA probe, each; coverage for sets containing 3 probes (if appropriate); 88271x2-DNA probe, each; coverage for sets containing 4 probes (if appropriate); 88271x3-DNA probe, each; coverage for sets containing 5 probes (if appropriate); 88274 w/modifier 52-Interphase in situ hybridization, <25 cells, each probe set (if appropriate); 88274-Interphase in situ hybridization, 25 to 99 cells, each probe set (if appropriate); 88275-Interphase in situ hybridization, 100 to 300 cells, each probe set (if appropriate);

MGMTD 621858 MGMT Promoter Methylation Analysis, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 144 mm(2) tissue (4 x 6 mm x 6 mm areas) -Minimum amount of tumor area: 36 mm(2) tissue (1 x 6 mm x 6 mm area) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: formalin-fixed paraffin-embedded (FFPE), non-decalcified Submit only 1 of the following specimens: Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed non-decalcified, paraffin-embedded tissue block. Specimen Type: Tissue slide Slides: 1 Stained and 10 unstained Collection Instructions: Submit 1 slide stained with hematoxylin and eosin and 10 unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: 5 unstained slides at 5-microns thickness

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81287; 88381-Microdissection manual;

VDSFT 621912 VDRL Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see NSAIP / Neurosyphilis IgG Antibody Index with VDRL, Serum and Spinal Fluid. Specimen Type: Spinal fluid Container/Tube: Sterile vial Specimen Volume: 2.2 mL Collection Instructions: 1. The spinal fluid (CSF) specimen must be collected within 24 hours of the serum specimen, preferably at the same time. 2. The CSF aliquot should be from the second, third, or fourth CSF vial collected during the lumbar puncture. Do not submit CSF from the first vial due to the possibility of blood contamination, which will cause specimen rejection. 3. Label vial as spinal fluid or CSF. 4. Band CSF specimen together with the serum sample.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86593

SCHPV 621927 Human Papillomavirus (HPV) Detection and High-Risk Genotyping, Self-Collect, PCR, Vaginal

Specimen Requirements: Patient Preparation: For 24 hours prior to specimen self-collection, patients should avoid using feminine hygiene products. Supplies: Evalyn Brush (T990) Specimen Type: Vaginal Collection Container/Tube: Evalyn Brush Submission Container/Tube: ThinPrep/PreservCyt solution vial Specimen Volume: 3 mL of solution in ThinPrep/PreservCyt vial Specimen Stability Information: Evalyn Brush: Ambient 72 hours ThinPrep/PreservCyt Vial: Ambient (preferred) 42 days/Refrigerated 42 days Collection Instructions: 1. Specimen must be collected by the patient in a healthcare setting. 2. Provide patient with a labeled Evalyn brush and the accompanying self-collection instruction pamphlet. 3. Following patient self-collection, ensure that the Evalyn brush is tightly capped and appropriately labeled. 4. Place labeled Evalyn brush in a biosafety bag and send to the laboratory. 5. Perform the following steps prior to shipment to Mayo Clinic Laboratories: a. Label PreservCyt (ThinPrep) vial with appropriate patient information. b. Uncap PreservCyt vial. Remove pink cap from Evalyn brush. c. Depress the pink plunger on the Evalyn brush to expose the brush (white bristles). d. Vigorously plunge the brush, smashing the white brush against the bottom and interior wall of the vial 10 times to maximize sample release. Be careful not to splash. e. Discard Evalyn brush f. Tightly recap the PreservCyt vial. g. Submit the PreservCyt vial for testing.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87626

SCCGT 621931 Chlamydia trachomatis and Neisseria gonorrhoeae, Self-Collect, Amplified RNA, Throat

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information: 87494

SCCTT 621932 Chlamydia trachomatis, Self-Collect, Nucleic Acid Amplification, Throat (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information:

SCGCT 621933 Neisseria gonorrhoeae, Self-Collect, Nucleic Acid Amplification, Throat (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information:

SCCGR 621934 Chlamydia trachomatis and Neisseria gonorrhoeae, Self-Collect, Amplified RNA, Rectal

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information: 87494

SCCTR 621935 Chlamydia trachomatis, Self-Collect, Nucleic Acid Amplification, Rectal

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information:

SCGCR 621936 Neisseria gonorrhoeae, Self-Collect, Nucleic Acid Amplification, Rectal (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information:

SCCGV 621937 Chlamydia trachomatis and Neisseria gonorrhoeae, Self-Collect, Amplified RNA, Vaginal

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information: 87494

SCCTV 621938 Chlamydia trachomatis, Self-Collect, Amplified RNA, Vaginal (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information:

SCGCV
621939

Neisseria gonorrhoeae, Self-Collect, Amplified RNA, Vaginal (Non-Orderable)

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information:

PANGP
621965

Expanded Pancreatitis Gene Panel, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) or yellow top (ACD) Acceptable: Green top (sodium heparin) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal

umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin or tissue Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin or tissue biopsy. Cultured cells from a prenatal specimen will not be accepted. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report.

Alternatively, additional specimen may be required to complete testing.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81223; 81404 x2; 81405 x2; 81479; 81479 (if appropriate for government payers);

NF2
622010

Merlin (NF2) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

SCOF3
622027

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS CoV-2) and Influenza Virus Type A and Type B RNA, Molecular Detection, PCR, Varies

Specimen Requirements: Preferred: Specimen Type: Nasopharyngeal swab Container/Tube: Sterile container with viral transport media Specimen Volume: Entire specimen with a minimum of 1.5 mL (maximum 3 mL) of transport media. Collection Instructions: 1. Collect specimen by swabbing back and forth over mucosa surface to maximize recovery of cells. 2. Swab must be placed into viral transport media (eg, M4-RT, M4 or M5), saline, or phosphate buffered saline (PBS). Media should not contain guanidine thiocyanate (GTC). Specimen Type: Bronchoalveolar lavage fluid Container/Tube: Sterile container Specimen Volume: 0.6 mL Additional Information: Do not aliquot into viral transport media. Acceptable: Specimen Types: Oropharyngeal (throat) swab, nasal mid-turbinate, or nares/nasal swab

Supplies: -Culturette (BBL Culture Swab) (T092) -Swab, Sterile Polyester (T507) Collection Container/Tube: Preferred: BBL Culture Swab, COPAN Mid-turbinate Swab Acceptable: Dacron-tipped swab with plastic handle Submission Container/Tube: Sterile container with transport media Specimen Volume: Entire specimen with a minimum of 1.5 mL (maximum 3 mL) of transport media. Collection Instructions: Swab must be placed into viral transport media (eg, M4-RT, M4, or M5), saline, or PBS. Media should not contain guanidine thiocyanate (GTC). Specimen Types: Bronchial washings, endotracheal aspirate, sputum Container/Tube: Sterile container Specimen Volume: 0.6 mL Additional Information: Do not aliquot into viral transport media.

Specimen Minimum Volume: Upper respiratory tract swab: See Specimen Required; lower respiratory specimens: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Frozen (preferred)	14 days
	Refrigerated	72 hours

CPT Code Information: 87636

SCOF4
622031

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS CoV-2), Influenza Virus Type A and Type B RNA, and Respiratory Syncytial Virus (RSV) Molecular Detection, PCR, Varies

Specimen Requirements: Preferred: Specimen Type: Nasopharyngeal swab Container/Tube: Sterile container with transport media Specimen Volume: Entire specimen with a minimum of 1.5 mL (maximum 3 mL) of transport media. Collection Instructions: 1. Collect specimen by swabbing back and forth over mucosa surface to maximize recovery of cells. 2. Swab must be placed into viral transport media (eg, M4-RT, M4 or M5), saline, or phosphate buffered saline (PBS). Media should not contain guanidine thiocyanate (GTC). Specimen Type: Bronchoalveolar lavage fluid Container/Tube: Sterile container Specimen Volume: 0.6 mL Additional Information: Do not aliquot into viral transport media. Acceptable: Specimen Type: Oropharyngeal (throat) swab, nasal mid-turbinate, or nares/nasal swab Supplies: -Culturette (BBL Culture Swab) (T092) -Swab, Sterile Polyester (T507) Collection Container/Tube: Preferred: BBL Culture Swab, COPAN Mid-turbinate Swab Acceptable: Dacron-tipped swab with plastic handle Submission Container/Tube: Sterile container with transport media Specimen Volume: Entire specimen with a minimum of 1.5 mL (maximum 3 mL) of transport media. Collection Instructions: Swab must be placed into viral transport media (eg, M4-RT, M4, or M5), saline, or PBS. Media should not contain guanidine thiocyanate (GTC). Specimen Type: Bronchial washings, endotracheal aspirate, sputum Container/Tube: Sterile container Specimen Volume: 0.6 mL Additional Information: Do not aliquot into viral transport media.

Specimen Minimum Volume: Upper respiratory tract swab: See Specimen Required; lower respiratory specimens: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Frozen (preferred)	14 days
	Refrigerated	72 hours

CPT Code Information: 87637

CYTH1
622036

T-Helper Cell Type 1 Cytokine Panel, Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	21 days

CPT Code Information: 83520 x5

ALWB
622056

Aluminum, Blood

Specimen Requirements: ***This specimen container cannot be opened or used for any other testing before shipping.*** Patient Preparation: High concentrations of gadolinium and iodine are known to potentially interfere with most inductively coupled plasma mass spectrometry-based metal tests. If either gadolinium- or iodine-containing contrast media has been administered, a specimen should not be collected for 96 hours. Supplies: -Greiner Bio-One VACUETTE TUBE 6 mL NH Trace Elements Sodium Heparin tube (T819) -Metal Free Specimen Vial (T173) Container/Tube: Greiner Bio-One VACUETTE TUBE 6 mL NH Trace Elements Sodium Heparin tube Specimen Volume: 1 mL Collection Instructions: See Metals Analysis Specimen Collection and Transport for complete instructions.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Refrigerated	14 days

CPT Code Information: 82108

MSAES
622116

Myositis Specific Antibody Evaluation, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 2.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86255 x10; 82397; 86235; 84182-SRPBS (if appropriate); 86256-SRPTS (if appropriate);

KLHCS
622117

Kelch-Like Protein 11 Antibody, Cell Binding Assay, Serum

Specimen Requirements:

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 0432U

KLHCC
622118

Kelch-Like Protein 11 Antibody, Cell Binding Assay, Spinal Fluid

Specimen Requirements: Patient Preparation: For optimal antibody detection, specimen collection is recommended before initiation of immunosuppressant medication, or corticosteroid or intravenous immunoglobulin (IVIg) treatment. Container/Tube: Sterile vial Preferred: Collection vial number 1 Acceptable: Any collection vial Specimen Volume: 1 mL

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 0432U

ADVQU
622150

Adenovirus DNA Detection and Quantification, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL (plasma) Collection Instructions: 1. Centrifuge blood collection tube per manufacturer's instructions (eg, centrifuge and aliquot within 2 hours of collection for BD Vacutainer tubes). 2. Aliquot plasma into plastic vial.

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen (preferred)	30 days
	Refrigerated	6 days

CPT Code Information: 87799

ALKP
622157

Alkaline Phosphatase, Total and Isoenzymes, Serum

Specimen Requirements: Patient Preparation: Fasting: 8 hours, required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For red top tubes, immediately aliquot into a plastic vial. 3. For serum gel tubes, serum may sit on gel refrigerated but must be aliquoted within 7 days.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 84075; 84080;

SLSUR
622224

Consult Slide Surcharge (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

NECT4
622259

Nectin-4, Semi-Quantitative Immunohistochemistry, Manual

Specimen Requirements: Specimen Type: Tissue Supplies: Pathology Packaging Kit (T554) Submit: Formalin-fixed, paraffin-embedded tissue block OR 3 Unstained glass, "positively charged" slides with 4-microns formalin-fixed, paraffin-embedded tissue Additional Information: 1. One slide will be stained with hematoxylin and eosin and returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

NEUD1
622267

Neuronal Differentiation 1 (NeuroD1), Technical Component only

Specimen Requirements: Supplies: Immunostain Technical Only Envelope (T693) Specimen Type: Tissue Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

NONCM 622295 Neuro-Oncology Gene Panel, Mutations Only, Tumor

Specimen Requirements: This assay requires at least 20% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 288 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -If ordered in conjunction with CMAPT / Chromosomal Microarray, Tumor, Formalin-Fixed Paraffin-Embedded, the preferred amount of tissue is 430 mm(2), the minimum amount is 180 mm(2). -These amounts are cumulative over up to 15 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified - For this test, at least 6 mm x 6 mm areas on 8 unstained slides is preferred: this is approximately equivalent to 288 mm(2). The minimum acceptable area is 6 mm x 6 mm on 1 unstained slides: approximately equivalent to 36 mm(2). For specimen preparation guidance, see Tissue Requirement for Solid Tumor Next-Generation Sequencing. Preferred: Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Acceptable: Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 15 unstained Collection Instructions: Submit the following slides: 1 Slide stained with hematoxylin and eosin AND 15 unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 15 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81457

CIFST 622323 Cutaneous Immunofluorescence Antibodies Titer, IgG, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see CIFS / Cutaneous Immunofluorescence Antibodies, IgG and IgG4, Serum. Collection Container/Tube: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	14 days

CPT Code Information: 88350

OSM24
622326

Osmolality, 24 Hour, Urine

Specimen Requirements: Supplies: -Diazolidinyl Urea (Germall), 5.0 mL (T822) -Urine Tubes, 10 mL (T068) Container/Tube: 24-hour graduated urine container with no metal cap or glued insert Specimen Volume: 10 mL Collection Instructions: 1. Collect urine for 24 hours 2. Add 5 mL of diazolidinyl urea as preservative at start of collection or refrigerate specimen during and after collection. Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Frozen	14 days
	Ambient	72 hours

CPT Code Information: 83935

IL1B
622327

Interleukin-1 Beta, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	21 days

CPT Code Information: 83520

SIL2R
622328

Interleukin-2 Receptor Alpha Soluble, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	21 days

CPT Code Information: 83520

ALPI
622349

Alkaline Phosphatase Isoenzymes, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see ALKP / Alkaline Phosphatase, Total and Isoenzymes, Serum. Patient Preparation: Fasting: 8 hours, required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For red top tubes, immediately aliquot into a plastic vial. 3. For serum gel tubes, serum may sit on gel refrigerated but must be aliquoted within 7 days.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 84080

MPS1B
622354

Endogenous Mucopolysaccharidosis Type I (IDUA [Alpha-L-Iduronidase]) Biomarker, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 paper, PerkinElmer 226 filter paper, Munktell filter paper, local newborn screening card, or postmortem screening card. Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect Dried Blood Spot Samples. 2. Completely fill at least 2 circles on filter paper card (approximately 100 microliters blood per circle). 3. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	30 days	FILTER PAPER
	Frozen	90 days	FILTER PAPER
	Ambient	13 days	FILTER PAPER

CPT Code Information: 82542

MPS2B
622357

Endogenous Mucopolysaccharidosis Type II (I2S [Iduronate-2-Sulfatase]) Biomarker, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 paper, PerkinElmer 226 filter paper, Munktell filter paper, local newborn screening card, or postmortem screening card. Specimen Volume: 2 Blood spots Collection Instructions 1. An alternative blood collection option for patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect Dried Blood Spot Samples. 2. Completely fill at least 2 circles on filter paper card (approximately 100 microliters blood per circle). 3. Let blood dry on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	30 days	FILTER PAPER
	Frozen	90 days	FILTER PAPER
	Ambient	13 days	FILTER PAPER

CPT Code Information: 82542

MPS1R
622360

Endogenous Mucopolysaccharidosis Type I (IDUA [Alpha-L-Iduronidase]) Biomarker Reflex, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 paper, PerkinElmer 226 filter paper, Munktell filter paper, local newborn screening card, or postmortem screening card. Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect Dried Blood Spot Samples. 2. Completely fill at least 2 circles on filter paper card (approximately 100 microliters blood per circle). 3. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	30 days	FILTER PAPER
	Frozen	90 days	FILTER PAPER
	Ambient	13 days	FILTER PAPER

CPT Code Information: 82542

MPS2R
622363

Endogenous Mucopolysaccharidosis Type II (I2S [Iduronate-2-Sulfatase]) Biomarker Reflex, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 paper, PerkinElmer 226 filter paper, Munktell filter paper, local newborn screening card, or postmortem screening card. Specimen Volume: 2 Blood spots Collection Instructions 1. An alternative blood collection option for patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect Dried Blood Spot Samples. 2. Completely fill at least 2 circles on filter paper card (approximately 100 microliters blood per circle). 3. Let blood dry on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Refrigerated (preferred)	30 days	FILTER PAPER
	Frozen	90 days	FILTER PAPER
	Ambient	13 days	FILTER PAPER

CPT Code Information: 82542

IDCOR
622374

Red Blood Cell Antigen Genotyping, PCR, Blood

Specimen Requirements: Container/Tube: Preferred: Pink top (EDTA) Acceptable: Lavender top (EDTA) Specimen Volume: 6 mL Pediatric Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Label specimen as blood. 3. Send whole blood specimen in the original tube. Do not aliquot.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Ambient	7 days

CPT Code Information: 0084U

AMLFA
622380

Adult Acute Myeloid Leukemia Panel, FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x6, 88275x3, 88291x1-FISH Probe, Analysis, Interpretation; 3 probe sets; 88271x2, 88275x1-FISH Probe, Analysis; each additional probe set (if appropriate);

AMLFP
622390

Pediatric Acute Myeloid Leukemia Panel, FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x22, 88275x11, 88291 x1-FISH Probe, Analysis, Interpretation; 11 probe sets; 88271x2, 88275x1-FISH Probe, Analysis; each additional probe set (if appropriate);

BALFP
622400

Pediatric B-Lymphoblastic Leukemia/Lymphoma Panel, FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x19, 88275 x9, 88291 x1-FISH Probe, Analysis, Interpretation; 9 probe sets; 88271 x2, 88275 x1-FISH Probe, Analysis; each additional probe set (if appropriate);

PHLFD
622410

B-Lymphoblastic Leukemia/Lymphoma with BCR::ABL1-like Features Panel, FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x12, 88275x6, 88291 x1-FISH Probe, Analysis, Interpretation; 6 probe sets; 88271x2, 88275x1-FISH Probe, Analysis; each additional probe set (if appropriate);

TALFP 622420 Pediatric T-Lymphoblastic Leukemia/Lymphoma Panel, FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x14, 88275x7, 88291x1- FISH Probe, Analysis, Interpretation; 7 probe sets; 88271x2, 88275x1-FISH Probe, Analysis; each additional probe set (if appropriate);

TLPFD 622430 T-Cell Lymphoma Panel, Diagnostic, FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2-3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271 x8, 88275 x4, 88291 x1- FISH Probe, Analysis, Interpretation; 4 probe set; 88271 x2, 88275 x1 - FISH Probe, Analysis; each additional probe set (if appropriate);

EOSFD
622440

Chronic Eosinophilia Panel, Diagnostic FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow specimen in original tube. Do not aliquot. Acceptable Specimen Type: Whole Blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information:

CHAGL
622447

Trypanosoma cruzi IgG, Lateral Flow Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see CRUZI / Trypanosoma cruzi (Chagas) Antibody Panel, Serum. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.10 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

CPT Code Information: 86753

CHAGI
622448

Trypanosoma cruzi, Technical Interpretation (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see CRUZI / Trypanosoma cruzi (Chagas) Antibody Panel, Serum.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen	14 days

COVSQ
622462

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), Spike Antibody, Semi-Quantitative, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Minimum Volume: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86769

COVTA
622465

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-

CoV-2), Nucleocapsid, Total Antibody, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 86769

DCALP
622511

Decalcification (Bill Only)

Specimen Requirements: This test is for billing purposes only. This is not an orderable test.

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88311

SSCP
622520

Systemic Sclerosis Criteria Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86039; 86235; 83516;

RAIFA
622521

Antinuclear Antibodies, HEp-2 Substrate, IgG, with Reflex, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86039

K818
622524

Keratin 8 and 18 (KRT8/18), Technical Component only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

DMTBR
622531

Mycobacterium tuberculosis Complex, Molecular Detection of Drug Resistance Markers, Next-Generation Sequencing

Specimen Requirements: Supplies: Infectious Container, Large (T146) Specimen Type: Mycobacterium tuberculosis complex isolate growing in pure culture Container/Tube: Preferred: Solid slant medium (eg. Middlebrook 7H10, 7H11 or Lowenstein Jensen agar) Acceptable: Broth medium (eg. Mycobacteria Growth Indicator Tube, 7H9 broth, BACT/ALERT MP or VersaTREK bottle). Note: Broth specimens will require subculture which will delay results. Specimen Volume: Solid slant medium: Isolate with visible growth Broth medium: Greater than or equal to 3 mL of broth culture Collection Instructions: 1. Organism must be in pure culture, actively growing. Do not submit mixed cultures. 2. Place specimen in a large infectious container and label as an etiologic agent/infectious substance. 3. Turnaround time for results may be delayed if subculture is needed to ensure purity.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 87153 - M tuberculosis drug resistance, NGS

BTD
622553

Biotinidase Deficiency, BTD Gene Sequencing with Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and

concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix

tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81404; 88233-Tissue culture, skin or solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

GLA
622568

Fabry Disease, GLA Gene Sequencing with Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about for testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710 Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies:

Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient

(preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405-GLA (galactosidase, alpha) (eg, Fabry disease), full gene sequence; 88233-Tissue culture, skin, or solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

GAAN
622582

Pompe Disease, GAA Gene Sequencing with Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710 Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva

swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed, and a charge will be applied. If applicable, specific gene regions that were unable to be

interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen can only tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406; 88233-Tissue culture, skin or solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

GBA
622596

Gaucher Disease, GBA1 Gene Sequencing with

Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710 Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper

at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed, and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing.

3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233-Tissue culture, skin or solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

HEXAN
622610

Tay-Sachs Disease, HEXA Gene Sequencing with Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin

Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received

within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406; 88233-Tissue culture, skin or solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

GALC
622624

Krabbe Disease, GALC Gene Sequencing with Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710 Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal

blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified

laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406; 88233-Tissue culture, skin or solid tissue biopsy (if appropriate);

88240-Cryopreservation (if appropriate);

ACADM 622638 Medium-Chain Acyl-CoA Dehydrogenase Deficiency (MCAD), ACADM Gene Sequencing with Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about for testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm (3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493)

Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed, and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information:

Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81479; 88233-Tissue culture, skin or solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

IDUA
622652

Mucopolysaccharidosis Type I, IDUA Gene Sequencing with Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about for testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710 Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection.

Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed, and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed, and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its

complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406 IDUA (iduronidase, alpha-L-) (eg, mucopolysaccharidosis type I), full gene sequence; 88233-Tissue culture, skin or solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

IDS
622666

Mucopolysaccharidosis Type II, IDS Gene Sequencing with

Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA is met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample.2. Let blood dry on the filter paper at

ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and/or extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing.

3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405-IDS (iduronate 2-sulfatase) (eg, mucopolysaccharidosis, type II), full gene sequence; 88233-Tissue culture, skin, or solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

ACADV 622680 Very Long-Chain Acyl-CoA Dehydrogenase (VLCAD) Deficiency, ACADVL Gene Sequencing with Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710 Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to

determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75 ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured

chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81406; 88233-Tissue culture, skin or solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

ABCD1
622694

X-Linked Adrenoleukodystrophy (XALD), ABCD1 Gene Sequencing with Deletion/Duplication, Varies

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710 Submit only 1 of the following specimens: Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information. Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA

requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on both the cord blood and maternal blood specimens under separate order numbers. Specimen Type: Saliva Patient Preparation: Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection. Supplies: DNA Saliva Kit High Yield (T1007) Saliva Swab Collection Kit (T786) Container/Tube: Preferred: High-yield DNA saliva kit Acceptable: Saliva swab Specimen Volume: 1 Tube if using T1007 or 2 swabs if using T786 Collection Instructions: Collect and send specimen per kit instructions. Specimen Stability Information: Ambient (preferred) 30 days/Refrigerated 30 days Additional Information: Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. Specimen Type: Skin biopsy Supplies: Fibroblast Biopsy Transport Media (T115) Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Specimen Volume: 4-mm Punch Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Cultured fibroblasts Source: Skin Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured fibroblast cells from a skin biopsy. Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Tissue biopsy Supplies: Hank's Solution (T132) Container/Tube: Sterile container with sterile Hank's balanced salt solution, Ringer's solution, or normal saline Specimen Volume: 0.5 to 3 cm(3) or larger Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: PerkinElmer 226 filter paper or blood spot collection card Specimen Volume: 2 to 5 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Samples. 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry. Specimen Stability Information: Ambient (preferred)/Refrigerated Additional Information: 1. Blood spot specimens are acceptable but not recommended. Multiple extractions will be required to obtain sufficient yield for supplemental analysis, and there is significant risk for test failure due to insufficient DNA. 2. Due to lower concentration of DNA yielded from blood spot, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing. 3. For collection instructions, see Blood Spot Collection Instructions 4. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 5. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Specimen Type: Extracted DNA Container/Tube: Preferred: Screw Cap Micro Tube, 2 mL with skirted conical base Acceptable: Matrix tube, 1 mL Collection Instructions: 1. The preferred volume is at least 100 mcL at a concentration of 75

ng/mcL. 2. Include concentration and volume on tube. Specimen Stability Information: Frozen (preferred) 1 year/Ambient/Refrigerated Additional Information: DNA must be extracted in a CLIA-certified laboratory or equivalent and must be extracted from a specimen type listed as acceptable for this test (including applicable anticoagulants). Our laboratory has experience with Chemagic, Puregene, Autopure, MagnaPure, and EZ1 extraction platforms and cannot guarantee that all extraction methods are compatible with this test. If testing fails, one repeat will be attempted, and if unsuccessful, the test will be reported as failed, and a charge will be applied. If applicable, specific gene regions that were unable to be interrogated due to DNA quality will be noted in the report. PRENATAL SPECIMENS Due to its complexity, consultation with the laboratory is required for all prenatal testing; call 800-533-1710 to speak to a genetic counselor. Specimen Type: Amniotic fluid Container/Tube: Amniotic fluid container Specimen Volume: 20 mL Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULAF / Culture for Genetic Testing, Amniotic Fluid. An additional 2 to 3 weeks are required to culture amniotic fluid before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Prenatal cultured fibroblasts (eg, products of conception), amniocytes, or other confluent cultured cells. This does not include cultured chorionic villi. Container/Tube: T-25 flask Specimen Volume: 2 Flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Chorionic villi Container/Tube: 15-mL tube containing 15 mL of transport media Specimen Volume: 20 mg Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen will only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks are required to culture fibroblasts before genetic testing can occur. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen. Specimen Type: Cultured chorionic villi Container/Tube: T-25 flasks Specimen Volume: 2 Full flasks Collection Instructions: Submit confluent cultured cells from another laboratory Specimen Stability Information: Ambient (preferred) <24 hours/Refrigerated <24 hours Additional Information: Specimen can only be tested after culture. 1. Specimens are preferred to be received within 24 hours of collection. Culture and extraction will be attempted for specimens received after 24 hours and will be evaluated to determine if testing may proceed. 2. A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. 3. All prenatal specimens must be accompanied by a maternal blood specimen; order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on the maternal specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: 81405-ABCD1 (ATP-binding cassette, sub-family D [ALD] member 1) (eg, adrenoleukodystrophy) full gene sequence; 88233-Tissue culture, skin or solid tissue biopsy (if appropriate); 88240-Cryopreservation (if appropriate);

NFLP
622765

Neurofilament Light Chain, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Lavender top (EDTA) Acceptable: None Submission Container/Tube: Plastic screw-top vial Specimen Volume: 0.6 mL Collection Information: Centrifuge and aliquot plasma into a plastic vial. Do not submit specimen in original tube.

Specimen Minimum Volume: 0.50 mL

Transport Temperature:

Specimen Type	Temperature	Time
EDTA Plasma	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 83884

NGSMC
622766

Comprehensive Myeloid Panel, Next-Generation Sequencing, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Bone marrow aspirate Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD-B) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix bone marrow with anticoagulant. 2. Send bone marrow in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Type: Whole blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Yellow top (ACD-B) Specimen Volume: 4 mL Collection Instructions: 1. Invert several times to mix blood with anticoagulant. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Label specimen as blood.

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	5 days
	Ambient	5 days

CPT Code Information: 81455

STAT3
622778

Phosphorylated STAT3 at Tyrosine 705 (pSTAT3-Y705), Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

EIACD
622780

Clostridioides difficile Toxin, EIA, Feces

Specimen Requirements: Submit only 1 of the following specimens: Preferred: Specimen Type: Preserved feces Supplies: Culture and Sensitivity Stool Transport Vial (T058) Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of nonnutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S) Specimen Volume: Representative portion of feces; 5 mL Collection Instructions: 1. Collect fresh fecal specimen and submit in container with transport medium. 2. Within 2 hours of collection place feces in preservative. Specimen Stability Information: Ambient (preferred) <7 days/Refrigerated <7 days Acceptable: Specimen Type: Unpreserved feces Supplies: -Stool container, Small (Random), 4 oz (T288) -Stool Collection Kit, Random (T635) Container/Tube: Fecal container Specimen Volume: Representative portion of feces Collection Instructions: Collect fresh fecal specimen and submit representative sample in fecal container. Specimen Stability Information: Refrigerated (preferred) <7 days/Frozen <7 days

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Varies	7 days

CPT Code Information: 87324

PHOSS 622796 Phosphorus (Inorganic), Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see: -RTRP2 / Tubular Reabsorption of Phosphorus, Random Urine and Serum -TRPP / Tubular Reabsorption of Phosphorus, Serum/Plasma/Urine Patient Preparation: Fasting 12 hours, required Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL serum Collection Instructions: 1. Serum gel tubes should be centrifuged within 2 hours of collection. 2. Red-top tubes should be centrifuged and the serum aliquoted into a plastic vial within 2 hours of collection.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	365 days

DHPVA 622798 Human Papillomavirus (HPV) Type 16, Droplet Digital PCR, Blood

Specimen Requirements: Supplies: Streck Tan Top Tube Kit (T715) Container/Tube: Streck Cell-Free DNA blood collection kit Specimen Volume: Two 10-mL Streck Cell-Free DNA blood collection tubes Additional Information: Only blood collected in Streck Cell-Free DNA tubes will be accepted for analysis.

Specimen Minimum Volume: One 10 mL Streck Cell-Free DNA blood collection tube

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 0661U

DHPVB 622799 Human Papillomavirus (HPV) Types 18, 31, 33, and 35, Droplet Digital PCR, Blood

Specimen Requirements: Supplies: Streck Tan Top Tube Kit (T715) Container/Tube: Streck Cell-Free DNA blood collection kit Specimen Volume: Two 10-mL Streck Cell-Free DNA blood collection tubes Additional Information: Only blood collected in Streck Cell-Free DNA tubes will be accepted for analysis.

Specimen Minimum Volume: One 10 mL Streck Cell-Free DNA blood collection tube

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 0660U

LUCHM
622811

LiquidHALLMARK ctDNA and ctRNA

Specimen Requirements: Specimen Type: Whole blood Supplies: Streck Tan Top Tube Kit (T715) Container/Tube: Two 10-mL Streck cell-free DNA (cfDNA) blood collection tubes Specimen Volume: 20 mL; 10 mL in two Streck tubes Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not centrifuge or aliquot.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
WB Streck	Ambient	4 days	Streck Black/Tan top

CPT Code Information: 0571U

LUCSF
622814

LiquidHALLMARK CSF

Specimen Requirements: Supplies: Sterile Specimen Tube, 6 mL (T485) Container/Tube: Sterile tube Specimen Volume: 5 mL Collection Instructions: 1. Perform lumbar puncture and discard the first 1 mL to 2 mL of cerebrospinal fluid (CSF). 2. Collect CSF directly into a sterile tube. 3. Inspect specimen for visible discoloration. Specimen must be clear and colorless to perform testing. 4. Freeze sample upright prior to placing in transport container. 5. Send frozen.

Specimen Minimum Volume: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen	30 days

CPT Code Information: 81455

5NTD
622835

5'-Nucleotidase, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	90 days

CPT Code Information: 83915

RTSCJ
622836

Reptilase Time, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	14 days

CPT Code Information: 85635

GUS
622837

Guselkumab, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial

Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Draw blood immediately before next scheduled dose (trough specimen). 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 80299

GAL1B
622838

Galactose-1-Phosphate, Blood Spot

Specimen Requirements: Submit only 1 of the following specimen types: Preferred: Specimen Type: Blood spot Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Blood Spot Collection Card Acceptable: Whatman Protein Saver 903 Paper, Revvity 226 filter paper, or blood collected in tubes containing EDTA and dried on filter paper Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. At least 2 spots should be complete (ie, unpunched). 3. Let blood dry on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Specimen Stability Information: Ambient (preferred) 91 days/Refrigerate 91 days/Frozen 91 days Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800) Acceptable: Specimen Type: Whole Blood Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium heparin) or yellow top (ACD) Specimen Volume: 2 mL Collection Instructions: Send specimen in original tube. Do not aliquot. Specimen Stability Information: Refrigerate (preferred) 48 hours/Frozen 14 days

Specimen Minimum Volume: Blood Spots: 1; Whole blood: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Varies	

CPT Code Information: 84378

TRBC3
622845

T-Cell Receptor Constant Beta Chain (TRBC1) +CD3 Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88344-TC

THCSM
622850

Thyroid Function Cascade, Monitor (without Thyroid Peroxidase Antibody), Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days
	Ambient	72 hours

CPT Code Information: 84443; 84439-(if appropriate); 84480-(if appropriate);

TRBC1
622852

T-Cell Receptor Constant Beta Chain (TRBC1) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only

Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: -Formalin-fixed, paraffin-embedded tissue block OR -2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

AAGFS
622854

Alpha-3 Beta-4 Ganglionic Neuronal Acetylcholine Receptor Binding Antibody, Flow Cytometry, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see: -DYS2 / Dysautonomia, Autoimmune/Paraneoplastic Evaluation, Serum -GID2 / Gastrointestinal Dysmotility, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

ASYNC
622855

Alpha-Synuclein Protein Aggregates, Spinal Fluid

Specimen Requirements: Supplies: Sterile Specimen Tube, 6 mL (T485) Container/Tube: Sterile tube Specimen Volume: 1 mL Collection Instructions: 1. Perform lumbar puncture and discard the first 1 to 2 mL of cerebrospinal fluid (CSF). 2. Collect CSF directly into a sterile tube. 3. Inspect specimen for visible discoloration. Specimen must be clear and colorless to perform testing. Do not centrifuge. 4. Freeze sample upright prior to placing in transport container. 5. Collection instructions can also be found on Spinal Fluid Specimen Collection Instructions for Alpha-Synuclein Protein Aggregates. Note: Polypropylene tubes are recommended for transport.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Frozen (preferred)	60 days
	Refrigerated	14 days

CPT Code Information: 0393U

BTBAS
622885

Butabarbital, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Collection Instructions: 1. Draw blood immediately before the next scheduled dose. 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

APLDF
622913

Acute Promyelocytic Leukemia-PML::RARA Fusion, Expedited Diagnostic FISH, Varies

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Bone marrow Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 2 to 3 mL Collection Instructions: 1. It is preferable to send the first aspirate from the bone marrow collection. 2. Invert several times to mix bone marrow. 3. Send bone marrow in original tube. Do not aliquot. Acceptable Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD) Acceptable: Green top (sodium heparin) or lavender top (EDTA) Specimen Volume: 6 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood in original tube. Do not aliquot.

Specimen Minimum Volume: Bone marrow: 1 mL; Whole blood: 2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88271x2, 88275x1, 88291x1- FISH Probe, Analysis, Interpretation; 1 probe set; 88271x2, 88275x1-FISH Probe, Analysis; each additional probe set (if appropriate);

MAGE4
622925

Melanoma-Associated Antigen-A4 (MAGE-A4), Semi-Quantitative Immunohistochemistry, Manual

Specimen Requirements: Specimen Type: Tissue Supplies: Pathology Packaging Kit (T554) Submit: Formalin-fixed, paraffin-embedded tissue block OR 3 Unstained glass, "positively charged" slides with 4-microns formalin-fixed, paraffin-embedded tissue Additional Information: 1. One slide will be stained with hematoxylin and eosin and returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

HBRM
622927

SWI/SNF Chromatin Remodeling Complex Subunit ATPase 2 (SMARCA2 or BRM) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

CYTH2
622929

T-Helper Cell Type 2 Cytokine Panel, Plasma

Specimen Requirements:

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma EDTA	Frozen	21 days

CPT Code Information: 83520 x4

IMPLF
622937

Immature Platelet Fraction, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 3 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	48 hours
	Ambient	24 hours

CPT Code Information: 85055

MCRSP
622969

MayoComplete Targeted RNA Sequencing Panel, Next-Generation Sequencing, Tumor

Specimen Requirements: This assay requires at least 10% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 144 mm(2) -Minimum amount of tumor area: tissue 36 mm(2) -These amounts are cumulative over up to 10 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirements for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 4 mm x 4 mm x 10 slides as preferred: approximate/equivalent to 144 mm(2) and the minimum as 3 mm x 1 mm x 10 slides: approximate/equivalent to 36 mm(2). Preferred: Submit 3, if available, or 2 of the following specimens. Acceptable: Submit at least one of the following specimens. Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with acceptable amount of tumor tissue. Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 10 unstained Collection Instructions: Submit the followings slides: 1 Slide stained with hematoxylin and eosin AND 10 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue. Note: The total amount of required tumor nuclei can be obtained by scraping up to 10 slides from the same block. Additional Information: 1. Hematoxylin and eosin-stained and unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed. Specimen Type: Cytology slides (direct smears or ThinPrep) Slides: 1 to 3 Slides Collection Instructions: Submit 1 to 3 slides stained and coverslipped with a total of 5000 nucleated cells (preferred) or at least 3000 nucleated cells (minimum). Note: Glass coverslips are preferred; plastic coverslips are acceptable but will result in longer turnaround times. Additional Information: 1. Cytology slides will not be returned. An image of the slides will be stored per regulatory requirements. 2. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81456

ARSAB
623012

Arylsulfatase A, Blood Spot

Specimen Requirements: Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Card-Blood Spot Collection (Filter Paper) Acceptable: PerkinElmer 226 filter paper, Munktell filter paper, Whatman protein Saver 903 paper, local newborn screening card, or blood collected in tubes containing EDTA (preferred) or heparin and dried on filter paper Specimen Volume: 2 Blood spots Collection Instructions: 1. Completely fill at least 2 circles on the filter paper card (approximately 100 microliters blood per circle). 2. Let blood dry on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 3. Do not expose specimen to heat or direct sunlight. 4. Do not stack wet specimens. 5. Keep specimen dry and freeze (with desiccant if necessary). Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection

instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Whole blood	Frozen (preferred)	28 days	FILTER PAPER
	Refrigerated	14 days	FILTER PAPER

CPT Code Information: 82657

OXAZS
623016

Oxazepam, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

TEMZS
623017

Temazepam and Oxazepam, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

GPNMB
623081

Glycoprotein Non-Metastatic Melanoma Protein B (GPNMB), Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, primary; 88341-TC, if additional IHC;

AAGTS
623083

Alpha-3 Beta-4 Ganglionic Neuronal Acetylcholine Receptor Binding Antibody, Flow Cytometry Titer, Serum (Non-Orderable)

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

BTP
623088

Beta-Trace Protein, Body Fluid

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Refrigerated (preferred)	14 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 83883

HSVSW
623119

Herpes Simplex Virus (HSV), Molecular Detection, PCR, Varies

Specimen Requirements: Specimen Type: Swab Sources: Genital, dermal, ocular, nasal, throat, or oral Supplies: -Culturette (BBL Culture Swab) (T092) -E-Swab (T853) -M4-RT (T605) Container/Tube: Multimicrobe media (M4-RT) or Universal Transport Medium (UTM) and E-Swab or Culturette Specimen Volume: Entire collection Collection Instructions: Place swab back into multimicrobe media (M4-RT, M4, or M5) or Universal Transport Medium (UTM).

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 87529 x 2; 87529 (if appropriate for government payers);

GUSAB
623122

Guselkumab Antibodies, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see GUSAP / Guselkumab Quantitation with Antibodies, Serum. Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL serum Collection Instructions: 1. Draw blood immediately before next scheduled dose (trough specimen). 2. Within 2 hours of collection, centrifuge and aliquot serum into a

plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: 83520

GUSAP
623123

Guselkumab Quantitation with Antibodies, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1.1 mL Serum Collection Instructions: 1. Draw blood immediately before next scheduled dose (trough specimen). 2. Within 2 hours of collection, centrifuge, and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	7 days

CPT Code Information: 80299; 83520;

CFCTB
623130

Mycobacteria and Nocardia Culture, Cystic Fibrosis, Varies

Specimen Requirements: Specimen Type: Respiratory fluid Sources: Bronchoalveolar lavage fluid, bronchial washing, sputum (saliva is not acceptable) Container/Tube: Sterile container Specimen Volume: 3 to 5 mL Collection Instructions: 1. Collect 3 separate respiratory specimens for acid-fast smears and culture in patients with clinical and chest X-ray findings compatible with tuberculosis. 2. These 3 specimens should be collected at 8 to 24-hour intervals (24 hours when possible) and should include at least 1 first-morning specimen.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Ambient	7 days

CPT Code Information: 87116-Mycobacterial Culture; 87015-Mycobacteria Culture, Concentration (if appropriate); 87118-Id MALDI-TOF Mass Spec AFB (if appropriate); 87150-Id, Mtb Speciation, PCR (if appropriate); 87153-Mycobacteria Identification by Sequencing (if appropriate); 87176-Tissue Processing (if appropriate); 87150- Id, MTB complex Rapid PCR (if appropriate);

ADMAB
623136

ADAMTS 13 Antibody, Plasma

Specimen Requirements:

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	

CPT Code Information: 83520

HSCHP
623137

High Sensitivity Clonal Hematopoiesis Panel, Next-Generation Sequencing, Blood

Specimen Requirements: Patient Preparation: A previous hematopoietic stem cell transplant from an allogenic donor will interfere with testing. For information about testing patients who have received a hematopoietic stem cell transplant, call 800-533-1710. Specimen Type: Whole blood Container/Tube: Lavender top (EDTA) or yellow top (ACD) Specimen Volume: 3 mL Collection Instructions: 1. Invert several times to mix blood. 2. Send whole blood specimen in original tube. Do not aliquot. 3. Whole blood collected postnatal from an umbilical cord is also acceptable. See Additional Information Specimen Stability Information: Ambient (preferred) 4 days/Refrigerated 4 days/Frozen 4 days Additional Information: 1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for specimens received after 4 days, and DNA yield will be evaluated to determine if testing may proceed. 2. To ensure minimum volume and concentration of DNA are met, the requested volume must be submitted. Testing may be canceled if DNA requirements are inadequate. 3. For postnatal umbilical cord whole blood specimens, maternal cell contamination studies are recommended to ensure test results reflect that of the patient tested. A maternal blood specimen is required to complete maternal cell contamination studies. Order MATCC / Maternal Cell Contamination, Molecular Analysis, Varies on

both the cord blood and maternal blood specimens under separate order numbers.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Frozen	
	Refrigerated	

CPT Code Information: 81479

MTNON 623144 Neuro-Oncology Genome-Wide Methylation Array Analysis, Tumor

Specimen Requirements: This assay requires at least 60% tumor nuclei. -Preferred amount of tumor area with sufficient percent tumor nuclei: tissue 360 mm(2) -Minimum amount of tumor area: tissue 144 mm(2) -These amounts are cumulative over up to 20 unstained slides and must have adequate percent tumor nuclei. -Tissue fixation: 10% neutral buffered formalin, not decalcified -For specimen preparation guidance, see Tissue Requirements for Solid Tumor Next-Generation Sequencing. In this document, the sizes are given as 6 mm x 6 mm x 10 slides as preferred: approximate/equivalent to 360 mm(2) and the minimum as 4 mm x 4 mm x 10 slides: approximate/equivalent to 144 mm(2). -If ordered in conjunction with other tests, please refer to specimen requirements for the specific tests. Preferred: Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block with an acceptable amount of tumor tissue Acceptable: Specimen Type: Tissue slide Slides: 1 Hematoxylin and eosin-stained and 20 unstained Collection Instructions: Submit the following slides: 1 Slide stained with hematoxylin and eosin AND 20 Unstained, nonbaked slides with 5-micron thick sections of the tumor tissue Note: The total amount of required tumor nuclei can be obtained by scraping up to 20 slides from the same block. Additional Information: 1. Unused unstained slides will not be returned. 2. Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81524

CTCON
623154

Chlamydia trachomatis Confirmation, Nucleic Acid Amplification, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information: 87491

GCCON
623156

Neisseria gonorrhoeae Confirmation, Nucleic Acid Amplification, Varies

Specimen Requirements:

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Varies	Refrigerated (preferred)	APTIMA VIAL	
	Ambient	APTIMA VIAL	
	Frozen	APTIMA VIAL	

CPT Code Information: 87591

METSP
623179

MET (SP44), Semi-Quantitative Immunohistochemistry, Manual

Specimen Requirements:

Transport Temperature:

Specimen Type	Temperature	Time
Special	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88360

TRAMS
623268

Tramadol and Metabolite, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: G0480 ; 80373 (if appropriate for select payers);

LCTF
623285

Lactoferrin, Feces

Specimen Requirements: Supplies: Stool container, Small (Random), 4 oz (T288) Container/Tube: Stool container Specimen Volume: 5 g Collection Instructions: 1. Collect a fresh random fecal specimen, no preservatives. 2. If specimen is sent refrigerate, send immediately after collection. 3. If specimen cannot be sent immediately, freeze specimen and send frozen. Additional Information: 1. Separate specimens must be submitted when multiple tests are ordered, with the exception of ELASF / Pancreatic Elastase, Feces and CALPR / Calprotectin, Feces. If only a single specimen is collected, it must be split prior to transport. 2. Testing cannot be added on to a previously collected specimen.

Specimen Minimum Volume: 1 g

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen (preferred)	7 days
	Ambient	72 hours
	Refrigerated	72 hours

CPT Code Information: 83631

KBAL
623286

Karius Focus, Bronchoalveolar Lavage

Specimen Requirements: Container/Tube: Sterile, leak-proof freezable container Specimen Volume: 1.5 mL Collection Instructions: 1. Collect bronchoalveolar lavage fluid (BALF) specimen according to your institutional guidelines. 2. Within 12 hours of specimen collection, transfer at least 1.5 mL of BALF specimen to a sterile container and freeze. 3. See Karius Focus: BAL Specimen Collection and Preparation Process for complete instructions. Additional Information: 1. Specimen cannot be shared with other tests. 2. Specimen trap collection containers (with suction catheters attached) will be rejected due to the high risk of leakage and contamination upon opening. Avoid use of these for BALF specimens. 3. If specimen transfer into an acceptable sterile container is necessary, perform specimen transfer in a biosafety cabinet. Place the container in a separate sealed plastic bag.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Bronchoalveolar Lavage	Frozen	180 days

CPT Code Information: 87999

KPLA
623287

Karius Spectrum, Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	180 days
	Ambient	4 days

CPT Code Information: 0152U

KDBAL
623288

Karius Focus, Direct Ship, Bronchoalveolar Lavage

Specimen Requirements: Supplies: Karius KDBAL Kit (T1015) Container/Tube: Streck CP tube Specimen Volume: 1 mL Collection Instructions: 1. Collect bronchoalveolar lavage fluid (BALF) specimen according to your institutional guidelines. 2. Within 12 hours of specimen collection, transfer at least 1 mL of BALF specimen to the Streck CP tube using disposable sterile pipette, taking care to avoid spilling storage reagent in Streck CP tube. 3. Screw the cap tightly and gently invert the tube 8 to 10 times. 4. Do not freeze the Streck CP tube. 5. See Shipping Instructions for how to package and ship the specimen to Karius Labs. Additional Information: 1. Specimen cannot be shared with other tests. 2. Specimen trap collection containers (with suction catheters attached) will be rejected due to the high risk of leakage and contamination upon opening. Avoid use of these for BALF specimens. Alternate Collection Instructions for when storage is needed before shipment 1. Collect BALF specimen according to your institutional guidelines. 2. Freeze BALF in the sterile collection tube. Do not use the Streck CP tube, as it must not be frozen. 3. When ready to prepare for shipment, thaw the frozen BALF specimen. 4. Label the Streck CP tube with the patient's first and last name, a unique patient identifier (eg, date of birth or medical record number), the collection date and time, and the thawing date. 5. Use a disposable pipette to carefully transfer 1 mL of BALF into the labeled Streck CP tube containing storage reagent. Avoid spilling the reagent. 6. Securely tighten the cap and gently invert the tube 8 to 10 times to mix. 7. Do not freeze the Streck CP tube. 8. See Shipping Instructions for how to package and ship the specimen to Karius Labs.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Bronchoalveolar Lavage	Ambient	7 days

CPT Code Information: 87999

KDPLA
623289

Karius Spectrum, Direct Ship, Plasma

Specimen Requirements: Supplies: Karius KDPLA Kit (T1014) Collection Container/Tube: Preferred: Plasma Preparation Tube (PPT) Acceptable: Lavender top (K2 EDTA) Submission Container/Tube: Preferred: PPT Acceptable: Sterile polypropylene tube Specimen Volume: 1 mL Plasma Collection Instructions: 1. Gently invert tube 8 to 10 times to mix whole blood. 2. Centrifuge specimen as follows: a. For PPT: Within 6 hours of collection, centrifuge at 1100 x g for 10 minutes. b. For K2 EDTA: i. Within 24 hours of collection, centrifuge at 1600 x g for 10 minutes. For tubes less than 4 mL, refer to tube manufacturer's instructions for centrifugation speed and time. ii. Aliquot 1 mL of plasma into a sterile polypropylene tube, taking care not to disturb the buffy coat. 3. See Shipping Instructions for how to package and ship the specimen to Karius Labs.

Specimen Minimum Volume: Plasma: 0.7 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Ambient	4 days

CPT Code Information: 0152U

DHPVR
623292

Human Papillomavirus (HPV) Type 16 with Type 18, 31, 33, and 35 Reflex, Droplet Digital PCR, Blood

Specimen Requirements: Supplies: Streck Tan Top Tube Kit (T715) Container/Tube: Streck Cell-Free DNA blood collection kit Specimen Volume: Two 10-mL Streck Cell-Free DNA blood collection tubes Additional Information: Only blood collected in Streck Cell-Free DNA tubes will be accepted.

Specimen Minimum Volume: One 10 mL Streck Cell-Free DNA blood collection tube

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient (preferred)	7 days
	Refrigerated	7 days

CPT Code Information: 0661U

HCQWB
623295

Hydroxychloroquine, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 1 mL Collection Instructions: 1. Collect specimen immediately before next scheduled dose. 2. Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80220

BCMA
623359

B-Cell Maturation Antigen (BCMA), Technical Component only

Specimen Requirements: Supplies: Immunostain Technical Only Envelope (T693) Specimen Type: Tissue Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

SOX9
623382

SOX9 (SRY-Box Transcription Factor) Immunostain, Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

GL5IC
623394

Metabotropic Glutamate Receptor-5 (mGluR5) IgG, Tissue Immunofluorescence, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy,

Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -PCDEC / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Spinal Fluid

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

GL5IS
623395

Metabotropic Glutamate Receptor-5 (mGluR5) IgG, Tissue Immunofluorescence, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum -PCDES / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Serum

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

GL5CC
623396

Metabotropic Glutamate Receptor-5 (mGluR5) IgG, Cell Based Assay, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic

Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -PCDEC / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Spinal Fluid

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

GL5CS
623397

Metabotropic Glutamate Receptor-5 (mGluR5) IgG, Cell Based Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum -PCDES / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Serum

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

AK5IC
623398

Adenylate Kinase 5 (AK5) IgG, Tissue Immunofluorescence, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

AK5IS
623399

Adenylate Kinase 5 (AK5) IgG, Tissue Immunofluorescence, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see: -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

AK5CC
623400

Adenylate Kinase 5 (AK5) IgG, Cell Based Assay, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

AK5CS
623401

Adenylate Kinase 5 (AK5) IgG, Cell Based Assay, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86255

13ACT
623415

Coagulation Factor XIII (13) Activity Assay, Plasma

Specimen Requirements:

Specimen Minimum Volume: Platelet-poor plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma Na Cit	Frozen	180 days

CPT Code Information: 85290

ELF
623424

Enhanced Liver Fibrosis (ELF), Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial. Specimens that have not been aliquoted will be rejected.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	365 days
	Ambient	48 hours

CPT Code Information: 81517

GFAPP
623425

Glial Fibrillary Acidic Protein (GFAP), Plasma

Specimen Requirements: Patient Preparation: Fasting: 8 hours, required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL plasma Collection Information: Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
EDTA Plasma	Refrigerated (preferred)	14 days
	Frozen	90 days
	Ambient	72 hours

CPT Code Information: 83520

CRTHS
623426

Double-Stranded DNA (dsDNA) IgG Antibodies, Crithidia luciliae Immunofluorescence Screen, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	21 days

CPT Code Information: 86255

CRTHT
623427

Double-Stranded DNA (dsDNA) IgG Antibodies, Crithidia luciliae Immunofluorescence Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see CRTHS / Double-Stranded DNA (dsDNA) IgG Antibodies, Crithidia luciliae Immunofluorescence Screen, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.8 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	21 days

CPT Code Information: 86256

PETNU
623429

Phosphoethanolamine, Quantitative, Random, Urine

Specimen Requirements: Supplies: Urine Tubes, 10 mL (T068) Container/Tube: Clean plastic urine tube Specimen Volume: 2 mL Collection Instructions: 1. Collect a random urine specimen. 2. No preservative.

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Urine	Frozen (preferred)	70 days
	Refrigerated	14 days

CPT Code Information: 82131

OPATS
623435

Opiate Panel, Free (Unconjugated), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	24 hours

CPT Code Information: G0480; 80361 (if appropriate for select payers); 80365 (if appropriate for select payers); 80356 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

MORS
623447

Morphine and Metabolite, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	24 hours

CPT Code Information: G0480; 80361 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

CODES
623449

Codeine and Metabolite, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	24 hours

CPT Code Information: G0480; 80361 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

HYDCS
623451

Hydrocodone and Metabolites, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	24 hours

CPT Code Information: G0480; 80361 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

HYDMS
623455

Hydromorphone, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	24 hours

CPT Code Information: G0480; 80361 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

OXYDS
623456

Oxycodone and Metabolites, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	24 hours

CPT Code Information: G0480; 80365 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

OXYMS
623460

Oxymorphone and Metabolite, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	24 hours

CPT Code Information: G0480; 80365 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

IM_04
623464

Antinuclear Antibodies, HEp-2 Substrate, with Reflex, Comment (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see RFLXP / Antinuclear Antibodies, HEp-2, Reflex Panel.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	28 days

CXCR3
623466

C-X-C Motif Chemokine Receptor 3 (CXCR3), Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25 x 75 x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

CCR4
623468

C-C Motif Chemokine Receptor 4 (CCR4), Technical Component Only

Specimen Requirements: Specimen Type: Tissue Supplies: Immunostain Technical Only Envelope (T693) Container/Tube: Immunostain Technical Only Envelope Submit: Formalin-fixed, paraffin-embedded tissue block OR 2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick Additional Information: Broken or cracked unstained slides will be rejected. Stained slides that were broken and repaired (ie, double mounted) at the client site will not be rejected, as, in most cases, they can still be reviewed under the microscope. However, due to the double mounting, digital scanning cannot be performed.

Transport Temperature:

Specimen Type	Temperature	Time
TECHONLY	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 88342-TC, Primary; 88341-TC, If additional IHC;

HV2QU
623478

HIV-2 RNA Detection and Quantification, Real-Time qRT-PCR, Plasma

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Lavender top (EDTA) Submission Container/Tube: Plastic vial Specimen Volume: 2.1 mL Plasma Collection Instructions: Centrifuge and aliquot plasma into a plastic vial.

Specimen Minimum Volume: Plasma: 1.1 mL

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Plasma EDTA	Frozen (preferred)	60 days	ALIQUOT TUBE
	Refrigerated	6 days	ALIQUOT TUBE

CPT Code Information: 87539

AK5TC
623485

Adenylate Kinase 5 (AK5) IgG, Tissue Immunofluorescence Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

AK5TS
623486

Adenylate Kinase 5 (AK5) IgG, Tissue Immunofluorescence Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

GL5TC
623487

Metabotropic Glutamate Receptor-5 (mGluR5) IgG, Tissue Immunofluorescence Titer, Spinal Fluid (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMC2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -ENC2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -EPC2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -MDC2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Spinal Fluid -PCDEC / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Spinal Fluid

Specimen Minimum Volume: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

GL5TS
623488

Metabotropic Glutamate Receptor-5 (mGluR5) IgG, Tissue Immunofluorescence Titer, Serum (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see: -DMS2 / Dementia, Autoimmune/Paraneoplastic Evaluation, Serum -ENS2 / Encephalopathy, Autoimmune/Paraneoplastic Evaluation, Serum -EPS2 / Epilepsy, Autoimmune/Paraneoplastic Evaluation, Serum -MDS2 / Movement Disorder, Autoimmune/Paraneoplastic Evaluation, Serum -PCDES / Pediatric Autoimmune Encephalopathy/CNS Disorder Evaluation, Serum

Specimen Minimum Volume: Serum: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	72 hours

CPT Code Information: 86256

SORDB
623501

Sorbitol and Xylitol, Quantitative, Whole Blood

Specimen Requirements: Patient Preparation: Fasting: 8 hours, required Container/Tube: Preferred: Lavender top (EDTA) Acceptable: Green top (sodium heparin) Specimen Volume: 1 mL Collection Instructions: 1. Invert several times to mix blood. 2. Freeze whole blood specimens in the original tube. Frozen aliquots from well-mixed specimens are also acceptable. 3. Send frozen.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Frozen (preferred)	90 days
	Refrigerated	31 days

CPT Code Information: 82542

IGF1S
623571

Insulin-Like Growth Factor 1, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.8 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code Information: 84305

IGFPN
623574

Insulin-Like Growth Factor 1 and Insulin-Like Growth Factor Binding Protein 3 Growth Panel, Serum

Specimen Requirements: Patient Preparation: For 12 hours before specimen collection, patient should not take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7). Collection Container/Tube: Preferred: Red top Acceptable: Serum gel Submission Container/Tube: 2 Plastic vials Specimen Volume: 1.6 mL Serum Collection Instructions: Centrifuge and aliquot serum into 2 plastic vials, each containing 0.8 mL of serum.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Ambient	72 hours
	Refrigerated	72 hours

CPT Code Information: 83520; 84305;

STFR1
623578

sTfR (Soluble Transferrin Receptor), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: 1. Within 2 hours of collection, centrifuge the specimen. 2. For red-top tubes, aliquot serum into a plastic vial prior to sending.

Specimen Minimum Volume: Serum: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	90 days
	Ambient	7 days

CPT Code Information: 84238

BHYPS
623579

Hypersensitivity Pneumonitis Panel, Immunoglobulin G, Serum

Specimen Requirements: Container/Tube: Sarstedt Aliquot Tube, 5 mL (T914) Preferred: Serum gel Acceptable: Red top Specimen Volume: 0.5 mL Serum Collection Information: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Frozen	28 days

CPT Code Information: 86001 x 7

AMPAS
623598

Amphetamine Panel, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	15 days

CPT Code Information: G0480; 80324 (if appropriate for select payers); 80359 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

SALCC
623604

Cortisol and Cortisone, Saliva

Specimen Requirements: If multiple specimens are collected, submit each Salivette under a separate order number. Patient Preparation: 1. Patient should not brush teeth, eat, drink, or take any oral medication for at least 60 minutes before specimen collection. 2. Have patient rinse mouth thoroughly with water for 1 to 5 seconds. Wait 10 minutes before collecting the specimen to avoid contamination of the saliva by an interfering substance. Supplies: Cortisol, Saliva Collection Kit (T514) Container/Tube: Sarstedt Salivette Specimen Volume: 1.5 mL Collection Instructions: 1. Provide patient with a Saliva Collection Kit (Salivette) containing the Cortisol and Cortisone - Saliva Collection Instructions and ask them to follow the instructions as written. 2. If performing a late-night salivary cortisol (LNSC) test, specimen should be collected immediately prior to going to bed. If patient is undergoing assessment for adrenal insufficiency, specimen should be collected immediately after waking up. The patient should follow their normal sleeping schedule. Record collection time on the Cortisol and Cortisone - Saliva Collection Instructions sheet. 3. Instruct patient to return Cortisol and Cortisone - Saliva Collection Instructions with the appropriately labeled Salivette to the laboratory. Additional Information: Reference intervals are available for LNSC testing (immediately before going to bed) and immediately after waking for assessment of adrenal insufficiency.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Saliva	Refrigerated (preferred)	28 days
	Frozen	60 days
	Ambient	14 days

CPT Code Information: 82533 - Cortisol; 82542 - Cortisone; ;

MIRI
623669

Mirikizumab, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: 1. Draw blood immediately before next scheduled dose (trough specimen). 2. Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.25 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code Information: 80299

SXDBS
623688

Sorbitol and Xylitol, Quantitative, Blood Spot

Specimen Requirements: Fasting: 8 hours, required. Infants should not fast overnight; collect just before next feeding. Supplies: Card-Blood Spot Collection (Filter Paper) (T493) Container/Tube: Preferred: Card-Blood Spot Collection (Filter Paper) Acceptable: PerkinElmer 226 filter paper, Munktell filter paper, Whatman protein Saver 903 paper, local newborn screening card, or blood collected in tubes containing EDTA (preferred) or sodium heparin and dried on filter paper. Specimen Volume: 2 Blood spots Collection Instructions: 1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How to Collect a Dried Blood Spot Sample. 2. Completely fill at least 2 circles on the filter paper card (approximately 100 microliters blood per circle). 3. Let blood dry on filter paper at ambient temperature in a horizontal position for a minimum of 3 hours. 4. Do not expose specimen to heat or direct sunlight. 5. Do not stack wet specimens. 6. Keep specimen dry. Additional Information: 1. For collection instructions, see Blood Spot Collection Instructions 2. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777) 3. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

Specimen Minimum Volume: 1 Blood spot

Transport Temperature:

Specimen Type	Temperature	Time	Special Container
Blood Spot	Ambient (preferred)	31 days	FILTER PAPER
	Frozen	90 days	FILTER PAPER
	Refrigerated	90 days	FILTER PAPER

CPT Code Information: 82542

OVAWA
623945

Ovarian Mass Risk Monitoring, OvaWatch, Serum

Specimen Requirements: Collection Container/Tube: Sarstedt Aliquot Tube, 5 mL (T914) Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Information: 1. Allow the specimen to clot for at least 30 minutes. 2. Within 2 hours of collection, centrifuge the specimen. 3. For serum gel tubes, aliquot serum into a plastic vial or send centrifuged serum gel tube. 4. For red top tubes, aliquot serum into a plastic vial within 10 minutes of centrifugation.

Specimen Minimum Volume: Serum 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	8 days
	Frozen	90 days

CPT Code Information: 0375U

OVAPA
623946

Ovarian Malignancy Risk Assessment, Ova1Plus, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Serum Collection Information: 1. Allow the specimen to clot for at least 30 minutes. 2. Within 2 hours of collection, centrifuge the specimen. 3. For serum gel tubes, aliquot serum into a plastic vial or send centrifuged serum gel tube. 4. For red top tubes, aliquot serum into a plastic vial within 10 minutes of centrifugation.

Specimen Minimum Volume: Serum: 1.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	8 days
	Frozen	90 days

CPT Code Information: 81503; 0003U;

TAPNS
624021

Tapentadol and Metabolite, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1.0 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	14 days
	Frozen	28 days
	Ambient	14 days

CPT Code Information: G0480 ; 80372 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

1433E
624066

14-3-3 eta, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum SST	Refrigerated (preferred)	14 days
	Frozen	100 days
	Ambient	48 hours

CPT Code Information: 83520

ZW359
624088

Miscellaneous Neurocode USA, Inc

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List

SLA
624092

Soluble Liver Antigen (SLA) IgG Antibodies, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 83516

MPHNS
624101

Methylphenidate and Metabolite, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen	28 days

CPT Code Information: G0480; ; 80360 (if appropriate for select payers);

COKEP
624104

Cocaine and Metabolites, Plasma

Specimen Requirements:

Specimen Minimum Volume: Plasma: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	28 days
	Refrigerated	6 days

CPT Code Information: G0480; 80353 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance ;

PCPS
624109

Phencyclidine Confirmation, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Red top (Serum gel/SST are not acceptable) Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Refrigerated (preferred)	28 days
	Frozen	28 days
	Ambient	48 hours

CPT Code Information: G0480; 83992 (if appropriate for select payers); Clinical Toxicology CPT Code Client Guidance;

RFLXP
624112

Antinuclear Antibodies, HEp-2, Reflex Panel (Non-Orderable)

Specimen Requirements: Only orderable as a reflex. For more information see RAIFA / Antinuclear Antibodies, HEp-2 Substrate, IgG, with Reflex, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.7 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	21 days

CPT Code Information: 86225; 86235 x5;

INSAL
624132

Insulin Analogs, Serum

Specimen Requirements: Patient Preparation: Fasting: 8 hours, required for human insulin reference values to apply Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Red Top Acceptable: Serum gel Submission Container/Tube: Plastic vial Specimen Volume: 1.5 mL Serum Collection Instructions: Within 2 hours of collection, centrifuge and aliquot serum into a plastic vial Additional Information: Human insulin reference values are not applicable to patients who were not fasting for 8 hours or received pharmaceutical/synthetic insulin analogs.

Specimen Minimum Volume: Serum: 0.75 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum Red	Frozen	14 days

CPT Code Information: G0480; 80375 (if appropriate for select payers);

HANGM
624185

Hantavirus IgM and IgG, ELISA, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86790 x 2

HANTM
624186

Hantavirus IgM, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see HANGM / Hantavirus IgM and IgG, ELISA, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86790

HANTG
624187

Hantavirus IgG, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of profile. For more information see HANGM / Hantavirus IgM and IgG, ELISA, Serum. Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.6 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	30 days
	Ambient	7 days

CPT Code Information: 86790

HANTI
624188

Hantavirus IgM and IgG, Technical Interpretation, Serum (Non-Orderable)

Specimen Requirements: Only orderable as part of a profile. For more information see HANGM / Hantavirus IgM and IgG, ELISA, Serum.

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	21 days
	Frozen	30 days
	Ambient	7 days

CERS
624326

Ceruloplasmin, Serum

Specimen Requirements: Patient Preparation: Fasting: 4 hours, preferred but not required Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial (false-bottom vials are not acceptable) Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	30 days

CPT Code Information: 82390

LIPA1
624437

Lipoprotein(a), Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	20 days
	Frozen	91 days
	Ambient	5 days

CPT Code Information: 83695

APOLB
624438

Apolipoprotein B, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Serum Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: Serum: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	8 days
	Frozen	60 days
	Ambient	24 hours

CPT Code Information: 82172

CMVP
800029

Cytomegalovirus (CMV) Antibodies, IgM and IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86644-CMV, IgG; 86645-CMV, IgM;

CMVG
800030

Cytomegalovirus (CMV) Antibodies, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86644

CMVM
800031

Cytomegalovirus (CMV) Antibodies, IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86645

SEBV
800033

Epstein-Barr Virus (EBV) Antibody Profile, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.6 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86664-EBNA; 86665 x 2-VCA, IgG and IgM;

TOXGP
800077

Toxoplasma gondii Antibody, IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 0.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86777

LHSV
800143

Herpes Simplex Virus (HSV), Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Body fluid Sources: Pleural, peritoneal, ascites, pericardial, amniotic, or ocular Container/Tube: Sterile container Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Swab Sources: Genital, dermal, ocular, nasal, throat, or oral Supplies: M4-RT (T605) Container/Tube: Multimicrobe media (M4-RT) Specimen Volume: Entire collection Collection Instructions: Place swab back into multimicrobe media (M4-RT) Additional Information: Source information should include main anatomical site of collection. Specimen Type: Respiratory Sources: Bronchial washing, bronchoalveolar lavage, nasopharyngeal aspirate or washing, sputum, or tracheal aspirate Container/Tube: Sterile container Specimen Volume: 1.5 mL Specimen Type: Tissue Sources: Brain, colon, kidney, liver, lung, etc. Supplies: M4-RT (T605) Container/Tube: Sterile container containing 1 mL to 2 mL of sterile saline or multimicrobe medium (M4-RT) Specimen Volume: Entire collection Collection Instructions: Submit only fresh tissue. Additional Information: Source information should include main anatomical site of collection. Specimen Type: Urine (<1-month old infant) Container/Tube: Sterile container Specimen Volume: 0.5 mL

Specimen Minimum Volume: Body or Ocular Fluid: 0.4 mL Respiratory Specimen: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87529 x 2; 87529 (if appropriate for government payers);

LCMV
800145

Cytomegalovirus (CMV), Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Body fluid Sources: Spinal, pleural, peritoneal, ascites, pericardial, amniotic, or ocular Container/Tube: Preferred: Sterile screw cap 5-mL aliquot tube Acceptable: Sterile container Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Genital swab Sources: Cervix, vagina, urethra, anal/rectal, or other genital sources Supplies: -Culturette (BBL Culture Swab) (T092) -M4-RT (T605) Container/Tube: Multimicrobe media (M4-RT) and ESwabs Collection Instructions: Place swab back into multimicrobe media (M4-RT, M4, or M5) Specimen Type: Swab Sources: Dermal, eye, nasal, saliva, or throat Supplies: -Culturette (BBL Culture Swab) (T092) -M4-RT (T605) Container/Tube: Multimicrobe media (M4-RT) and ESwabs Collection Instructions: Place swab back into multimicrobe media (M4-RT, M4, or M5) Specimen Type: Tissue Sources: Brain, colon, kidney, liver, lung, etc. Supplies: M4-RT (T605) Container/Tube: Sterile container containing 1 mL to 2 mL of sterile saline or multimicrobe medium (M4-RT, M4, or M5) Specimen Volume: Entire collection Collection Instructions: Submit only fresh tissue in multimicrobe media (M4-RT) or a sterile container with 1 to 2 mL sterile saline Specimen Type: Urine Container/Tube: Sterile container Specimen Volume: 1 mL Collection Instructions: Collect a random urine specimen. Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) Specimen Volume: 0.5 mL Collection Instructions: Send bone marrow in original tube. Do not aliquot.

Specimen Minimum Volume: Body fluid, ocular fluid, spinal fluid, or urine: 0.3 mL; Respiratory specimens: 1 mL; Tissue: 2 x 2-mm Biopsy

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87496

LVZV
800168

Varicella-Zoster Virus, Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Body fluid Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Sources: Spinal, pleural, peritoneal, ascites, pericardial, amniotic, or ocular Container/Tube: Sterile container Specimen Volume: 0.5 mL Collection Instructions:

Do not centrifuge. Specimen Type: Swab Sources: Miscellaneous; dermal, eye, nasal, or throat Supplies: -Culturette (BBL Culture Swab) (T092) -M4-RT (T605) Container/Tube: Multimicrobe media (M4-RT) and ESwabs Collection Instructions: Place swab back into multimicrobe media (M4-RT, M4, or M5). Specimen Type: Genital swab Sources: Cervix, vagina, urethra, anal/rectal, or other genital sources Supplies: -Culturette (BBL Culture Swab) (T092) -M4-RT (T605) Container/Tube: Multimicrobe media (M4-RT) (T605) and ESwabs Collection Instructions: Place swab back into multimicrobe media (M4-RT, M4, or M5). Specimen Type: Respiratory Sources: Bronchial washing, bronchoalveolar lavage, nasopharyngeal aspirate or washing, sputum, or tracheal aspirate Container/Tube: Sterile container Specimen Volume: 1.5 mL Specimen Type: Tissue Sources: Brain, colon, kidney, liver, lung, etc. Supplies: M4-RT (T605) Container/Tube: Preferred: Multimicrobe media (M4-RT) Acceptable: Sterile container with 1 to 2 mL of sterile saline Specimen Volume: Entire collection Collection Instructions: Submit only fresh tissue in a sterile container containing 1 mL to 2 mL of sterile saline or multimicrobe medium (M4-RT, M4, or M5)

Specimen Minimum Volume: Body Fluid, Ocular Fluid, or Spinal Fluid: 0.3 mL Respiratory Specimens: 1 mL Tissue: 2 x 2-mm biopsy

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

LCJC 800170 JC Virus, Molecular Detection, PCR, Spinal Fluid

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5mL (T914) Container/Tube: Preferred: Aliquot tube Acceptable: Sterile screw cap vial Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge.

Specimen Minimum Volume: 0.3 mL

Transport Temperature:

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

LEBV 800244 Epstein-Barr Virus (EBV), Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Body fluid Sources: Spinal, peritoneal, ascites, pericardial, pleural, thoracentesis, amniotic, or ocular Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Sterile, screw cap, 5-mL aliquot tube Acceptable: Sterile container Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Respiratory fluid Sources: Bronchial washing, bronchoalveolar lavage, nasopharyngeal aspirate or washing, sputum, or tracheal aspirate Supplies: Sarstedt Aliquot Tube, 5 mL Container/Tube: Preferred: Sterile, screw cap, 5-mL aliquot tube Acceptable: Sterile container Specimen Volume: 1.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Swab Sources: Eye and upper respiratory (nasal, throat) Supplies: -Culturette (BBL Culture Swab) (T092) -M4-RT (T605) Container/Tube: Multimicrobe media (M4-RT) and Eswabs Collection Instructions: Place swab back into multimicrobe media (M4-RT, M4 or M5) Specimen Type: Bone marrow Container/Tube: Lavender top (EDTA) Specimen Volume: 0.5 mL Additional Information: Clotted specimens will be rejected. Specimen Type: Tissue Sources: Brain, colon, kidney, liver, lung, cornea, etc. Supplies: M4-RT (T605) Container/Tube: Preferred: Multimicrobe medium (M4-RT) Acceptable: Sterile container containing 1 to 2 mL of sterile saline or multimicrobe medium (M4-RT, M4 or M5) Specimen Volume: Entire collection Collection Instructions: Submit only fresh tissue

Specimen Minimum Volume: Fluids: 0.3 mL; Respiratory Specimens: 1 mL; Tissue: 2 x 2-mm biopsy; Swab: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87798

TRCHG
800270

ToRCH Profile IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 2 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 1.2 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86644-CMV; 86695-Herpes simplex, type 1; 86696-Herpes simplex, type 2; 86762-Rubella; 86777-Toxoplasma;

HPSAF
800272

Helicobacter pylori Antigen, Feces

Specimen Requirements: Collection Container/Tube: Stool container Submission Container/Tube: Plastic container Specimen Minimum Volume: 5 g Collection Instructions: Mix stool well.

Specimen Minimum Volume: 5 g

Transport Temperature:

Specimen Type	Temperature	Time
Fecal	Frozen (preferred)	60 days
	Refrigerated	72 hours

CPT Code Information: 87338

LHSVZ
800315

Herpes Simplex Virus (HSV) and Varicella-Zoster Virus (VZV), Molecular Detection, PCR, Varies

Specimen Requirements: Submit only 1 of the following specimens: Specimen Type: Swab Supplies: -Culturette (BBL Culture Swab) (T092) -M4-RT (T605) Sources: Genital, dermal, eye, or throat Container/Tube: Multimicrobe media (M4-RT) Specimen Volume: Swab Collection Instructions: Place swab back into multimicrobe media (M4-RT, M4, or M5). Additional Information: Source information should include the main anatomical source of collection. Supplies: Sarstedt Aliquot Tube 5 mL (T914) Specimen Type: Fluid Sources: Pleural, peritoneal, ascites, pericardial, amniotic, or ocular Container/Tube: Sterile container Specimen Volume: 0.5 mL Collection Instructions: Do not centrifuge. Specimen Type: Respiratory Sources: Bronchial washing, bronchoalveolar lavage, nasopharyngeal aspirate or washing, sputum, or tracheal aspirate Container/Tube: Sterile container Specimen Volume: 1.5 mL Specimen Type: Tissue Supplies: M4-RT (T605) Sources: Brain, colon, kidney, liver, lung, etc Container/Tube: Sterile container containing 1 mL to 2 mL of sterile saline or multimicrobe medium (M4-RT, M4, or M5) Specimen Volume: Entire collection Collection Instructions: Submit only fresh tissue in multimicrobe media (M4-RT) or a sterile container with 1 to 2 mL sterile saline.

Specimen Minimum Volume: Body Fluid or Ocular Fluid: 0.3 mL; Respiratory: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87529 x2 HSV-1 and HSV-2 87798-VZV 87999 (if appropriate for government payers)

LLPB
800433

Leukemia/Lymphoma Immunophenotyping, Flow Cytometry, Blood

Specimen Requirements: Specimen Type: Whole blood Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) Specimen Volume: 6 mL Slides: If possible, include 5 to 10 unstained blood smears labeled with two unique identifiers Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen as blood.

Specimen Minimum Volume: 3 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole blood	Ambient	4 days

CPT Code Information: 88184-Flow cytometry; first cell surface, cytoplasmic or nuclear marker x 1; 88185-Flow cytometry; additional cell surface, cytoplasmic or nuclear marker (each) ; 88187-Flow Cytometry Interpretation, 2 to 8 Markers (if appropriate); 88188-Flow Cytometry Interpretation, 9 to 15 Markers (if appropriate); 88189-Flow Cytometry Interpretation, 16 or More Markers (if appropriate);

EBVE
800748

Epstein-Barr Virus (EBV), IgG Antibody to Early Antigen, Serum

Specimen Requirements: Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86663

HGB
801417

Hemoglobin, Blood

Specimen Minimum Volume: 1 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	48 hours
	Ambient	24 hours

CPT Code Information: 85018

LHSVB
802067

Herpes Simplex Virus (HSV), Molecular Detection, PCR, Blood

Specimen Requirements: Container/Tube: Lavender top (EDTA) Specimen Volume: 1 mL Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

Specimen Minimum Volume: 0.4 mL

Transport Temperature:

Specimen Type	Temperature	Time
Whole Blood EDTA	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87529 x 2; 87529 (if appropriate for government payers);

BCGET
802123

Immunoglobulin Gene Rearrangement, Tissue

Specimen Requirements: Submit only 1 of the following specimens Preferred: Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue or bone marrow aspirate clot block. Acceptable: Specimen Type: Tissue slides Slides: 1 Hematoxylin and eosin-stained and 4 to 10 unstained Container/Tube: Transport in plastic slide holders. Collection Instructions: Send 1 hematoxylin and eosin-stained slide and 4 to 10 unstained, nonbaked slides with 10-micron thick (preferred) or 5-micron thick sections from a formalin-fixed, paraffin-embedded tissue block or bone marrow aspirate clot block.

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Tissue, Paraffin	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81261-IGH (Immunoglobulin heavy chain locus) (eg, leukemias and lymphomas B-cell), gene rearrangement analysis to detect abnormal clonal populations; amplified methodology (eg. polymerase chain reaction); 81264-IGK (Immunoglobulin kappa light chain locus) (eg, leukemia and lymphoma, B-cell) gene rearrangement analysis, evaluation to detect abnormal clonal populations;

TCGET
802124

T-Cell Receptor Gene Rearrangement, PCR, Tissue

Specimen Requirements: Submit only 1 of the following specimens: Preferred Specimen Type: Tissue slides Slides: 4 unstained Collection Instructions: Submit 4 consecutive, positively charged, unbaked, unstained slides with 10-micron thick sections Acceptable Specimen Type: Tissue block Collection Instructions: Submit a formalin-fixed, paraffin-embedded tissue block containing neoplastic cells

Specimen Minimum Volume: See Specimen Required

Transport Temperature:

Specimen Type	Temperature	Time
Tissue, Paraffin	Ambient (preferred)	
	Refrigerated	

CPT Code Information: 81340-TCB (T cell antigen receptor, beta) (eg, leukemia and lymphoma), gene rearrangement analysis to detect abnormal clonal population(s); using amplification methodology (eg, PCR); 81342-TCG (T cell receptor, gamma) (eg, leukemia and lymphoma), gene rearrangement analysis, evaluation to detect abnormal clonal population(s);

TXM
802126

Toxoplasma gondii Antibody, IgM, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Plastic vial Specimen Volume: 1 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86778

TXMGP
802127

Toxoplasma gondii Antibody, IgM and IgG, Serum

Specimen Requirements: Supplies: Sarstedt Aliquot Tube, 5 mL (T914) Collection Container/Tube: Preferred: Serum gel Acceptable: Red top Submission Container/Tube: Aliquot tube Specimen Volume: 1.5 mL Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Specimen Minimum Volume: 0.8 mL

Transport Temperature:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	14 days
	Frozen	14 days

CPT Code Information: 86778-Toxoplasma IgM; 86777-Toxoplasma IgG;

FLUNP
802208

Influenza Virus Type A and Type B, and Respiratory Syncytial Virus (RSV), Molecular Detection, PCR, Nasopharyngeal Swab

Specimen Requirements: Specimen Type: Nasopharyngeal swab Container/Tube: Sterile container with viral transport media Collection Instructions: 1. Collect specimen by swabbing back and forth over mucosa surface to maximize recovery of cells. 2. Swab must be placed in viral transport media (for example, M4-RT, M4, or M4 media).

Specimen Minimum Volume: Nasopharyngeal swab submitted in minimum volume of 0.3 mL of viral transport media (eg, M4-RT)

Transport Temperature:

Specimen Type	Temperature	Time
Swab	Refrigerated (preferred)	7 days
	Frozen	7 days

CPT Code Information: 87631

FPEPA
89123456

Gastric Pepsin Assay

Specimen Requirements: Specimen Type: Body fluid Sources: Tracheal or bronchial secretions Container/Tube: Standard transport tube Specimen Volume: 1 mL Collection Instructions: 1. Collect a minimum of 1 mL tracheal or bronchial fluid. 2. Transfer to a tightly capped plastic tube and freeze immediately. 3. Ship frozen.

Specimen Minimum Volume: 0.5 mL

Transport Temperature:

Specimen Type	Temperature	Time
Body Fluid	Frozen	30 days

CPT Code Information: 83986; 84157; 82657;

ZW190
89123468

Miscellaneous Nemours Children's Health-Gastroenterology

Specimen Requirements: This is a Miscellaneous Referral Test. For specific requirements, refer to the Referred Tests List under the Test Catalog tab on www.MayoClinicLabs.com. Internal Mayo Clinic providers: refer to the Referral Catalog in CRM. If unable to find the correct test, request forms, or specimen requirements, contact Customer Service at 800-533-1710 or 507-266-5700. The following must be provided when ordering: 1. Test name 2. Performing lab code 3. Specimen Type 4. For required forms including requisitions and patient specific information forms, ie, consent forms, clinical information, family history, contact Customer Service at 800-533-1710 or 507-266-5700.

Specimen Minimum Volume: See Individual Test ID on the Referred Tests List

Transport Temperature:

Specimen Type	Temperature	Time
Varies	Varies	

CPT Code Information: See Individual Test ID on the Referred Tests List