MAYO CLINIC LABORATORIES

NEW TEST

Notification Date: December 9, 2025
Effective Date: December 9, 2025

Karius Spectrum, Plasma

Test ID: KPLA

Useful for:

Rapid and minimally invasive detection of deep-seated and difficult-to-diagnose systemic infections throughout the body.

Provide antimicrobial resistance detection for microbes known to utilize the antimicrobial resistance mechanism.

Methods:

Metagenomic Sequencing

Reference Values:

An interpretive report will be provided.

Specimen Requirements:

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. For complete instructions see Karius Spectrum Specimen Collection and Preparation Process.

Minimum Volume: Plasma: 0.7 mL

Specimen Stability Information:

Specimen Type	Temperature	Time
Plasma	Frozen (preferred)	180 days
	Ambient	4 days

Cautions:

The Karius Spectrum test does not detect RNA viruses.

Recent treatment with defibrotide sodium, an oligonucleotide drug derived from porcine tissue, may result in detectable microbial cell-free DNA from porcine-associated microbes and should be considered when interpreting results.

This test has been validated only for human plasma collected in EDTA anticoagulant.

Reliable results are dependent on adequate specimen collection, processing, transport, and storage procedures.

This test will report uncertain or unresolved species within the corresponding genus, eg, Aspergillus flavus/oryzae or Neisseria species.

The antimicrobial resistance marker may not always be linked with the microbe indicated.

The presence or absence of an antimicrobial resistance marker does not always correlate to the expected phenotype.

The assay analytical sensitivity is influenced by the depth of sequencing achieved. A minimum sequencing depth is required to pass quality control. Many batches achieve greater than this minimum sequencing depth resulting in enhanced sensitivity.

Concentration values for different microbes may not be comparable to each other.

To increase the clarity of the report as it relates to infections, microbes detected as frequently co-occurring are not reported when found together in one specimen. This may reduce the sensitivity to detect polymicrobial events such as mucosal membrane barrier disruptions, skin disruptions, gut injuries or aspiration pneumonia.

Microbes within a taxonomic family may not be reported when detected at less than 25% of the most abundant microbe within the corresponding taxonomic family.

Microbes within a taxonomic superkingdom are not reported when detected at less than 3% of the most abundant microbe within the superkingdom.

False-positive or false-negative results may occur for reasons including but not limited to sporadic contamination from specimen collection, reagent, and materials or hospital and laboratory environments, technical and biological factors.

The report of a microbe signifies the presence of its cell-free DNA in the patient's plasma specimen. It may or may not be the cause of an infection. Results should be interpreted within the context of clinical data, including medical history, physical findings, epidemiological factors, and other laboratory data.

CPT Code:
0152U

Day(s) Performed: Monday through Saturday

Report Available: 2 to 6 days

Note:
The following referral test code(s) will become obsolete.

Test Name	Test ID	Referral Lab Code	Referral Lab
Karius Spectrum	ZW300	MML1359	Karius Laboratory

Questions
Contact James Conn, Laboratory Resource Coordinator at 800-533-1710.