MAYO CLINIC LABORATORIES

Test Definition: MONOS

Infectious Mononucleosis, Rapid Test, Serum

Overview

Useful For
Diagnosis of Epstein-Barr virus mononucleosis

Method Name
Agglutination

NY State Available
Yes

Specimen

Specimen Type
Serum

Specimen 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.

Forms
If not ordering electronically, complete, print, and send Infectious Disease Serology Test Request (T916) with the specimen.

Specimen Minimum Volume
0.1 mL

Reject Due To

Gross hemolysis	Reject
Gross lipemia	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container

Serum	Refrigerated (preferred)	14 days	
	Frozen	14 days	

Clinical & Interpretive

Clinical Information

Infectious mononucleosis (IM) is a viral illness that involves reticuloendothelial tissue and is generally limited to children and young adults. IM is most frequently caused by Epstein-Barr virus. The disease is characterized by fever, sore throat, lymphadenopathy, headache, and fatigue and, on a symptomatic basis, may be confused with other diseases. Detectable levels of unique heterophile antibodies are produced in patients with IM.

Reference Values

Negative

Reference values apply to all ages.

Interpretation

Detectable levels of the infectious mononucleosis heterophile antibody can usually be expected to occur between the sixth and tenth day following the onset of symptoms. The level usually increases through the second or third week of illness and, thereafter, can be expected to persist, gradually declining over a 12-month period.

Cautions

Approximately 10% of patients with infectious mononucleosis (IM) will have no heterophile antibody and may require Epstein-Barr virus antibody tests to confirm the diagnosis.

False-negative results have been reported. Some of these may represent cases of IM that remain persistently seronegative for the IM heterophile antibody. However, some false-negative results have been shown to be due to a delayed IM heterophile antibody response.

Infectious mononucleosis heterophile antibody titers have been shown to persist in some cases for months to years after clinical symptoms have subsided. Conversely, IM heterophile antibodies have been detected prior to the onset of clinical symptoms. Thus, caution should be exercised in the interpretation of test results.

The IM heterophile antibody has been associated with several diseases other than IM. These include leukemia, Burkitt lymphoma, pancreatic carcinoma, viral hepatitis, cytomegalovirus infections, and others. In these cases, it is difficult to disprove the possibility of concurrent disease states.

Some segments of the population do not produce detectable heterophile antibodies, eg, approximately 50% of children younger than 4 years and 10% of adolescents.

Clinical Reference

Johannsen EC, Kaye KM. Epstein-Barr virus (infectious mononucleosis, Epstein-Barr virus-associated malignant diseases, and other diseases). In: Bennett JE, Dolin R, Blaser MJ, eds. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. 9th ed. Elsevier; 2020:1872-1890

Performance

Method Description
The Remel Mono-Lex System is a latex agglutination test for the detection of infectious mononucleosis (IM) heterophile antibody. Latex particles are sensitized with a bovine red blood cell mononucleosis antigen. When agglutination is observed, a diagnosis of IM is highly probable. The presence of IM antibody in serum at detectable levels will interact with the sensitized particles to produce visible aggregation, which is a positive result.(Package insert: MONO-LEX System. Remel Inc; 01/2022)

PDF Report
No

Day(s) Performed
Monday through Sunday

Report Available
Same day/1 to 2 days

Specimen Retention Time
14 days

Performing Laboratory Location
Mayo Clinic Laboratories - Rochester Superior Drive

Fees & Codes

Fees
- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

Test Classification
This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information
86308

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
MONOS	Infectious Mono Test, S	5213-4

Test Definition: MONOS

Infectious Mononucleosis, Rapid Test, Serum

Result ID	Test Result Name	Result LOINC® Value
MONOS	Infectious Mono Test, S	5213-4