

Mannan Binding Lectin Complement Pathway, Functional, Serum

Test ID: MBLF

Ordering Guidance:

The most appropriate primary assays to use as screening methods for complement deficiencies are COM / Complement, Total, Serum and AH50 / Alternative Complement Pathway, Functional, Serum. Abnormal results in one or the other, none, or both assays will help direct further testing. If total complement (CH50) and AH50 are both normal but the suspicion of a complement deficiency remains, this test for the lectin pathway function is recommended. After the initial 3 pathways of complement functional status are evaluated, the analysis of individual components and regulators may uncover functional or quantitative defects in certain components.

This test is rarely useful when ordered in isolation.

As the heat-labile fraction of the immune system, complement activation in vitro has been a challenge for researchers and scientists. Because of the thermal instability of complement proteins, it is often necessary to repeat testing to rule out a possible pre-analytical issue with a sample type, real complement consumption, or dysregulation.

Useful for:

Investigation of recurrent meningococcal disease in young children

Investigation of recurrent or severe infections in adults

Investigation of glomerular kidney diseases

Additionally, deficiencies or dysregulation within the complement system may be identified in patients when this test is used in combination with related tests.

Methods:

Enzyme-Linked Immunosorbent Assay (ELISA)

Reference Values:

> or =10%

Specimen Requirements:

Patient Preparation:

1. If plasma exchange has been performed, wait 48 hours before collecting the specimen.
2. Fasting is preferred.

- Collection Container/Tube:** Red top (**serum gel/SST are not acceptable**)
- Submission Container/Tube:** Plastic vial
- Specimen Volume:** 1 mL
- Minimum Volume:** 0.4 mL
- Collection Instructions:**
1. Immediately after specimen collection, place the tube on wet ice.
 2. Centrifuge at 4 degrees C and aliquot serum into plastic vial.
 3. Freeze specimen within 30 minutes.

Specimen Stability Information:

Specimen Type	Temperature	Time
Serum Red	Frozen	14 days

Cautions:

This assay is a functional test and is dependent on correct sampling, storage, and shipping conditions. Both degradation by temperature and consumption of complement components will lead to falsely low function results. These are difficult to differentiate from real complement dysregulation.

While pre-analytic handling can lead to falsely low results, it is far less likely that it would lead to falsely normal results.

Complement testing may be ordered in several circumstances where standard treatment includes plasmapheresis or plasma exchange. The procedure itself, if traumatic, may activate complement so may not reflect what is going on with the patient's complement system. In addition, the plasma exchange may include donor complement proteins. The recommendation is to collect blood prior to the plasma exchange whenever possible.

Functional results inconsistent with the clinical history should be verified with a new blood draw.

Specimens should be frozen immediately after collection.

CPT Code:

86161

Day(s) Performed: Varies **Report Available:** 1 to 14 days

Note:

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

Test Name	Test ID	Referral Lab Code	Referral Lab
Mannose Binding Lectin	FMANO	0051692	ARUP Laboratories
Mannan Binding Lectin (MBL)	FMBL	33	Eurofins Viracor

Questions

Contact Amy Ennis, Laboratory Technologist Resource Coordinator at 800-533-1710.