
Lab Dept: Serology

Test Name: HEPATITIS Bc TOTAL ANTIBODY, REFLEX TO IGM, SERUM (ANTI-HBc)

General Information

Lab Order Codes: HBC

Synonyms: Hepatitis B Core Viral Antibody, Serum; HBc Total Ab, w/Reflex, S; Hepatitis B Core IgG/IgM Antibody; Anti-HBC; HBcAb; Mayo CORAB

CPT Codes: 86704 – Hepatitis B core antibody (HbcAb); total
86705 (if appropriate)

Test Includes: If hepatitis B core (HBc) total antibodies is positive, then HBc IgM is performed at an additional charge.

Logistics

Test Indications: Differentiation between acute and chronic hepatitis B infection. Diagnosis of acute hepatitis B infection in the “core window” when HbsAg and anti HBs are negative. Discriminating between HbsAg-positive patients (carriers) whose acute hepatitis is due to HBV infection and those whose acute hepatitis is due to other causes. Because low titer of IgM anti-Hbc can be either absent or present in chronic HBV carriers, IgM anti-HBc assessment is not usually considered useful in diagnosing chronic active or chronic persistent hepatitis B. This test is not useful for demonstration of immunity to or recovery from hepatitis B viral infection.

Lab Testing Sections: Serology - Sendouts

Referred to: Mayo Clinic Laboratories (Test: CORAB)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 - 3 days, test performed Monday-Saturday.

Special Instructions: This test is not offered as a screening or confirmatory test for blood donor specimens.

Specimen

Specimen Type:	Blood
Container:	SST (Gold or Marble)
Draw Volume:	3 mL (Minimum: 1.2 mL) blood
Processed Volume:	1 mL (Minimum: 0.4 mL) serum
Collection:	Routine venipuncture
Special Processing:	<p>Lab Staff: Centrifuge specimen, remove serum/plasma from clot within 24 hours. Place serum aliquot into a screw-capped round bottom plastic vial. Store and ship at frozen temperatures. Forward promptly.</p> <p>Specimen stable frozen (preferred) for 28 days, refrigerated for 7 days, ambient for 24 hours.</p>
Patient Preparation:	None
Sample Rejection:	Specimens other than serum; gross hemolysis, lipemia or icterus; unlabeled or mislabeled specimens.

Interpretive

Reference Range:	<p>Negative (reported as positive, negative or inconclusive)</p> <p>Interpretation: Positive antibodies to hepatitis B core antigen (anti-HBc) total result may indicate recent, past/resolved, or chronic hepatitis B viral (HBV) infection.</p> <p>Testing for anti-HBc IgM (HBIM / Hepatitis B Core Antibody, IgM, Serum) is necessary to confirm the presence of acute or recent hepatitis B. A positive anti-HBc total result with a negative anti-HBc IgM result indicates past or chronic HBV infection. Differentiation between past/resolved and chronic hepatitis B can be based on the presence of hepatitis B surface antigen (HBsAg) in the latter condition.</p> <p>Negative anti-HBc total results indicate the absence of recent, past/resolved, or chronic hepatitis B. An inconclusive result for HBc total suggests presence of interfering substance in the patient's serum specimen.</p> <p>Positive antibodies to anti-HBc total results with negative anti-HBc IgM results in infants younger than 18 months may be due to passively acquired maternal IgG antibodies. Additional testing, such as HBsAg, anti-HBc IgM, and hepatitis Be antigen, are necessary to confirm a diagnosis of acute or recent hepatitis B in these infants.</p>
Critical Values:	N/A

Limitations:

This test is not offered as a screening or confirmatory test for blood donor specimens.

Performance characteristics have not been established for the following specimen characteristics:

- Grossly icteric (total bilirubin level of >20 mg/dL)
- Grossly lipemic (triglyceride level of >3,000 mg/dL)
- Grossly hemolyzed (hemoglobin level of >500 mg/dL)
- Containing particulate matter
- Cadaveric specimens
- Heat inactivated specimens

Methodology:

Chemiluminescence Immunoassay (CIA)

References:

[Mayo Clinic Laboratories](#) July 2023

Updates:

4/6/2004: Test moved from Memorial Blood Center of Minneapolis to Mayo Medical Laboratories. Test is now an automatic reflex to the IgM specific Anti-HBc.

3/15/2005: Updated test method for Hepatitis Bc IgM antibody. Previously listed as Microparticle Enzyme Immunoassay (MEIA).

8/10/2005: Test no longer reflexes to Hepatitis B Core IgM Specific test when Hepatitis Bc Ab is positive. The IgM specific test must be ordered separately if desired. Note: Change in methodology previously listed as Enzyme Immunoassay (EIA).

8/26/2015: EDTA specimens no longer acceptable.

1/16/2017: Update to SST.

1/8/2018: Updated Reference Range and Limitations per Mayo.

7/24/2023: Corrected Mayo test code, added stability, updated interpretation, updated turnaround time, clarified test name to more closely match Mayo's catalog.