

Division of Laboratory Medicine

Immunology

CH50 complement activity Classical Pathway

General information

Specimen transport: All samples from outside the hospital should be transported on an ice pack. Transport at room temperature is acceptable within this hospital if the sample is delivered to the Immunology laboratory within 3 hours on weekdays only (not including bank holidays).

Repeat frequency: At significant change in symptoms

Special precautions: Sample must be received by the laboratory no more than 3 hours post sample collection. If samples are likely to take longer than 3 hours to be delivered post venepuncture, they must be centrifuged, and the separated serum sample transported on ice to avoid reduction in activity that can occur with time.

Laboratory information

Normal reference range: 41.68 – 95.06 U/mL

Volume and sample type: 4ml serum

Method: Turbidimetry

Turnaround time (calendar days from sample receipt to authorised result): Median – 7

Participation in EQA Scheme: INSTAND Complement Analysis EQA scheme

Clinical information

Indications for the test: Suspected complement deficiency e.g. meningococcal infection

Factors affecting the test: If screened too soon after acute infection leads to falsely abnormal results due to complement activation. Some complement components are temperature sensitive and it is important that the samples should be delivered to the lab in a timely manner and on ice.

(Last updated October 2025)