Complement, Total (CH50)

Order Name: **CH50**
Test Number: 5569251
Revision Date: 04/14/2023

TEST NAME	METHODOLOGY	LOINC CODE
Complement, Total (CH50)	Quantitative IVD Assay	4532-8

SPECIMEN REQUIREMENTS

Specimen	Specimen Volume (min)	Specimen Type	Specimen Container	Transport Environment
Preferred	**1 mL (0.3 mL)**	**Serum**	**Clot Activator (Red Top, No-Gel)**	**Frozen**

Instructions

Allow 1 hour to clot at room temperature, **Separate the serum from cells ASAP or no longer than 2 hours after collection.**
Separate the serum from the cells and transfer 1mL(0.3mL) of serum into a standard transport tube and freeze within 2 hours of collection.**Do Not Share this specimen with another test.**
It is critical to freeze the complement specimen immediately after the transfer of specimen to a transport tube.
Reasons for Rejection: Use of serum separator tube, Clotting at 2-8°C, Exposure to repeated freeze/thaw cycles, Samples containing high levels of lipid, hemoglobulin or bilirubin cause interference and should be avoided.
Stability: Room Temperature 2 hours, Refrigerated n/a, Frozen 2 Weeks

GENERAL INFORMATION

Testing Schedule	Tuesday, Friday
Expected TAT	5-7 days, batched
Clinical Use	Low levels of total complement may occur during infection, exacerbation of SLE, exacerbation of hereditary angioedema and glomerulonephritis. Undetectable levels suggest possibility of a complement deficiency.
Notes	This assay is an FDA approved quantitative IVD assay that will improve testing reliability, workflow and turn around time (TAT). The methodology utilizes liposomes, encapsulating glucose-6-phosphate dehydrogenase (G6PDH) to mimic an invading microorganism. The patient's serum sample provides the complement for the lysis of the liposome which releases G6PDH and reacts with glucose-6-phosphate and NAD. The change in absorbance is measured and is proportional to the complement activity in the sample. The results are compared to a calibration curve which gives a value for the patient's sample. Complement activity has been correlated with the active stage of systemic lupus erythematosus, rheumatoid arthritis, some forms of nephritis and inherited deficiencies of the classical complement system.
CPT Code(s)	86162
Service Provided By	labcorp Oklahoma, Inc.