

COMPLEMENT
COMPONENTS

Orderable - CCOMPG

Turnaround Time: 40 days

Alternate Name(s):

CCOMPG

Complement components group test: C1qrs, C5, C6, C7, C8, C9

(Each component may be ordered separately)



Laboratory:

Clinical Immunology Lab



Requisition:

GENERAL LABORATORY
REQUISITION



Method of Analysis:

Radial Immunodiffusion
(RID)



Test Schedule:

Referred out monthly.
Total complement CH50
is performed as a screen
to determine the
component assay is
required.



Referred To:

National Jewish Medical
and Research Center
1400 Jackson St.,
Denver, Colorado
80206

Specimen:

Age 10-Adult	Pediatric
6 mL Red top Vacutainer tube and 5 mL Lavender top (K ₃ EDTA) tube Require 2 x 1 mL aliquots each of serum and plasma for send out	0-2 years: 2 x 0.5 Red Microtainer and 2 x 0.5 Lavender Microtainer Require 2 x 0.5 mL aliquots each of serum and plasma for send out 2-10 years: 2 x 4 mL Red top and 2 x 4 mL Lavender top Require 2 x 1 mL aliquots each of serum and plasma for send out
Both plasma and serum are required.	

Collection Information:

Request CH50 (TCOM) on the same sample. (CH50 is performed by the Immunology Lab.)

Note that all requests will be screened first by a Total complement. Only if this screen is below the normal range will the complement component be sent out; if the screen is normal or high then the request will be cancelled.

Record collection time.

Mix the lavender top tube well after procurement.

Send the sample to the laboratory ASAP.

Mix the Lavender tube well after procurement. Centrifuge at room temperature or in a warm centrifuge as soon as possible after collection. Aliquot the plasma into two clean storage tubes and freeze as rapidly as possible.


 COMPLEMENT
 COMPONENTS

Allow the filled Red top tube to clot at 22 - 37°C for 30 – 60 minutes. Centrifuge at room temperature or in a warm centrifuge. Aliquot into two clean storage tubes and freeze as soon as possible.

Reference Ranges:

Component	Range
C1q	83 to 125 mg/L
C1r	61 to 162 % of standard
C1s	59 to 297 % of standard
C5	55 to 113 mg/L
C6	28 to 69 mg/L
C7	35.3 to 96.5 mg/L
C8	49 to 106 mg/L
C9	33 to 95 mg/L

Interpretive Comments:

Group test that includes, C1qrs, C5, C6, C7, C8, C9.

Not included in the group test: C1 esterase inhibitor, C2, C3, C4.

Total complement (TCOM, CH50) is a screen for classical pathway function. The component assay is a quantitative evaluation of the concentration of each component but does not evaluate the functional activity of the component.

In vivo consumption or inherited complement deficiency may result in decreased levels of individual components.

The absence of a single component when the others are normal or elevated suggests genetic deficiency of the missing component. The absence or decreased levels of multiple components suggests consumption.

Special Processing:

Centrifuge lavender tube (plasma) at room temperature as soon as possible after collection. Aliquot the plasma into 2 storage tubes and freeze as rapidly as possible. Allow the filled red top tube to clot at 22-37°C for 30-60 minutes. Centrifuge at room temperature. Aliquot into storage tube and freeze as soon as possible. Store at -20°C (preferably -7°C).

Aliquots:

For CH50-1 Aliquot (serum)

For C6-2 Aliquots (plasma)



COMPLEMENT COMPONENTS

Comments:

This test is available exclusively to SJHC/LHSC physicians.

Total complement is assayed first to determine if the components evaluation is necessary. Only if the total complement is less than the lower limit of normal will the complement component be processed. Otherwise the component(s) is cancelled with the Comment: "Test not indicated."

Storage and Shipment:

LHSC (SRA to Immunology Laboratory) – ship frozen on ice packs. Avoid freeze/thaw cycles.

Specimen Stability:

Frozen at -70°C: 1 year