



02/03/2025 19:45

Immunoturbidimetric assay

# **Laboratory Investigation Report**

Name : Mr. KHARAK Ref No. : 39717

**DOB** : **Sample No.** : 2503545884

 Age / Gender
 : 26 Y / Male
 Collected
 : 01/03/2025 16:00

 Referred by
 : Dr. AMAIZAH
 Registered
 : 02/03/2025 19:03

**BIOCHEMISTRY** 

Test Result Flag Unit Reference Range Methodology

**C3 (COMPLEMENT-3)** 149 mg/dL 90 - 180

CITICARE MEDICAL CENTER

Please note change. Source: Roche IFU.

Reported

#### **INTERPRETATION NOTES:**

Compliment 3 is required for the activation of three pathways namely classic pathway, properdin pathway and MBP pathway. C3 deficiency may result in pneumococcal and Neisserial infections as well as autoimmune diseases like Glumerulonephtitis. It also act as phase rectant and levels rise after trauma, surgery, and during inflammatory processes. Increased levels - Acute phase reponse respond, biliary obstruction, and focal glomerulosderosis. Decreased levels - Infancy, genetic deficiency, acquired deficiency like lupus nephritis, collagen vascular diseases, and severe infections.

### Bibliography:

Centre

1. Herbert LE. et al., Kidney International 1991; 39:811.

2. West CD. Complement Inflamm 1989; 6:49.

3. Dalmasso P. Critical Reviews in Clinical Laboratory Sciences 1986; 4:123.

C4 (COMPLEMENT-4) 33.7 mg/dL 10 - 40 Immunoturbidimetric assay

Please note change. Source: Roche IFU.

## **INTERPRETATION NOTES:**

Compliment 4 deficiency results in the inability of immune complexes to activate the complement pathway. This results in inability to generate peptides that dear the immune complexes or generate lyic activity. Hence these patients have increased susceptibility to infections specially with encapsulated microorganisms.C4 deficiency may be an etiology factor in the development of autoimmune diseases. Increased levels - acute phase reactions due to inflammation, trauma, and tissue necrosis. decreased levels - infancy, genetic deficiency, and acquired deficiency as in SLE, angioedema, autoimmune, hemolytic anemia, and autoimmune nephritis.

## **Bibliography:**

- 1. Herbert LE. et al., Kidney International 1991; 39:811.
- 2. West CD. Complement Inflamm 1989; 6:49.
- 3. Dalmasso P. Critical Reviews in Clinical Laboratory Sciences 1986; 4:123.

C-REACTIVE PROTEIN (CRP)

2.0 mg/L < 5.0 Particle-enhanced immunoturbidimetric assay

Please note change. Source: Roche IFU.

#### **INTERPRETATION NOTES:**

- 1. CRP measurements are used as aid in diagnosis, monitoring, prognosis, and management of suspected inflammatory disorders and associated diseases, acute infections and tissue injury.
- 2. C-reactive protein is the classic acute phase protein in inflammatory reactions.

Dr. Adley Mark Fernandes Dr. Vyoma V Shah
M.D (Pathology) M.D (Pathology)
Pathologist Clinical Pathologist

Pathologist Clinical Pathologist
This is an electronically authenticated report

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Laboratory Technologist
Printed on: 02/03/2025 19:46

Test result pertains only to the sample tested and to be interpreted in the light of clinical history. These tests are accredited under ISO 15189:2012 unless specified by (^). Test marked with # is performed in an accredited referral laboratory.





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CRP is the most sensitive of the acute phase reactants and its concentration increases rapidly during inflammatory processes. The CRP response frequently precedes clinical symptoms, including fever. After onset of an acute phase response, the serum CRP concentration rises rapidly and extensively. The increase begins within 6 to 12 hours and the peak value is reached within 24 to 48 hours. Levels above 100 mg/L are associated with severe stimuli such as major trauma and severe infection (sepsis).

CRP response may be less pronounced in patients suffering from liver disease.

CRP assays are used to detect systemic inflammatory processes (apart from certain types of inflammation such as systemic lupus erythematosus (SLE) and Colitis ulcerosa); to assess treatment of bacterial infections with antibiotics; to detect intrauterine infections with concomitant premature amniorrhexis; to differentiate between active and inactive forms of disease with concurrent infection, e.g. in patients suffering from SLE or Colitis ulcerosa; to therapeutically monitor rheumatic disease and assess anti-inflammatory therapy; to determine the presence of post-operative complications at an early stage, such as infected wounds, thrombosis and pneumonia, and to distinguish between infection and bone marrow transplant rejection.

Serum Sample Type:



Dr. Adley Mark Fernandes M.D (Pathology) **Pathologist** 

This is an electronically authenticated report

Dr. Vyoma V Shah M.D (Pathology) **Clinical Pathologist** 

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