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**Lab Dept:** Chemistry

**Test Name:** C4 (FOURTH COMPONENT OF COMPLEMENT)

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***General Information***

**Lab Order Codes:** C4

**Synonyms:** C'4; Fourth component of complement; Complement 4

**CPT Codes:** 86160 – Complement; antigen, each component

**Test Includes:** C4 concentration reported in mg/dL.

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***Logistics***

**Test Indications:** C4 is essential for the activation of the classical pathway. C4 deficiency is associated with very high prevalence of autoimmune or collagen vascular disease. It has been proposed that C4 may be critical for the clearance of viral infections.

**Lab Testing Sections:** Chemistry

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 1 day

**Special Instructions:** N/A

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***Specimen***

**Specimen Type:** Blood

**Container:** Green top (Lithium Heparin) tube, preferred  
Alternate: Red, marble or gold top tube

**Draw Volume:** 0.6 mL blood

**Processed Volume:** 0.2 mL serum

**Collection:** Routine blood collection

**Special Processing:** Lab Staff: Centrifuge specimen, remove serum aliquot into a plastic sample cup. Specimens can be stored at refrigerated temperatures for up to 7 days. Centrifuge turbid or particulate samples prior to analysis.

**Patient Preparation:** None

**Sample Rejection:** Mislabeled or unlabeled specimens; specimens other than serum; lipemic or turbid specimens

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***Interpretive***

<b>Reference Range:</b>	<b>Age</b>	<b>Reference range (mg/dL)</b>
	0 - <1 year:	7 - 30
	1 - <19 years:	13 - 37
	Adult:	15 - 57

**Critical Values:** N/A

**Limitations:** Samples containing paraproteins (abnormal monoclonal antibodies) may interfere with test results. Samples with elevated total protein concentrations or samples from patients with suspected paraproteinemia can be screened using other laboratory methods, such as protein electrophoresis.

**Methodology:** Immunoturbidimetric

**References:** Tietz, NW, Textbook of Clinical Chemistry (1999) WB Saunders Co., Philadelphia, PA, 3<sup>rd</sup> edition

Abbott Alinity c Complement C4 Reagent Kit Instructions for Use (March 2019) Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA

Abbott Alinity c Specific Proteins Multiconstituent Calibrators Package Insert (February 2018) Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA

Bio-Rad Liquichek Immunology Control Package Insert, Bio-Rad Laboratories, Irvine, CA, 92618, USA

CALIPER Reference Range Studies (accessed October 27, 2020)

**Updates:** 2/8/2016: Update alt tube types  
 12/8/2020: Updated for method Abbott Alinity, removed method Siemens Vista