

## Overview

### Useful For

Assessing nutritional status

### Testing Algorithm

For more information see:

[Amyloidosis: Laboratory Approach to Diagnosis](#)

[Multiple Myeloma: Laboratory Screening](#)

### Special Instructions

- [Amyloidosis: Laboratory Approach to Diagnosis](#)
- [Multiple Myeloma: Laboratory Screening](#)

### Method Name

Photometric, Bromcresol Green

### NY State Available

Yes

## Specimen

### Specimen Type

Serum

### Necessary Information

Patient's age and sex are required.

### Specimen Required

**Collection Container/Tube:**

**Preferred:** Serum gel

**Acceptable:** Red top

**Specimen Volume:** 0.5 mL

**Submission Container/Tube:** Plastic vial

**Collection Instructions:**

1. Serum gel tubes should be centrifuged within 2 hours of collection.
2. Red-top tubes should be centrifuged, and the serum aliquoted into a plastic vial within 2 hours of collection.

### Forms

If not ordering electronically, complete, print, and send 1 of the following forms with the specimen:

-[Kidney Transplant Test Request](#)

**-Renal Diagnostics Test Request (T830)****Specimen Minimum Volume**

0.25 mL

**Reject Due To**

Gross hemolysis	Reject
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**Specimen Stability Information**

Specimen Type	Temperature	Time	Special Container
Serum	Refrigerated (preferred)	150 days	
	Frozen	120 days	

**Clinical & Interpretive****Clinical Information**

Albumin is a carbohydrate-free protein, which constitutes 55% to 65% of total plasma protein. It maintains oncotic plasma pressure, is involved in the transport and storage of a wide variety of ligands, and is a source of endogenous amino acids. Albumin binds and solubilizes various compounds, including bilirubin, calcium, long-chain fatty acids, toxic heavy metal ions, and numerous pharmaceuticals.

Hypoalbuminemia is caused by several factors: impaired synthesis due either to liver disease (primary) or due to diminished protein intake (secondary), increased catabolism as a result of tissue damage and inflammation, malabsorption of amino acids, and increased renal excretion (eg, nephrotic syndrome).

**Reference Values**

&gt; or =12 months: 3.5-5.0 g/dL

Reference values have not been established for patients who are <12 months of age.

For SI unit Reference Values, see <https://www.mayocliniclabs.com/order-tests/si-unit-conversion.html>

**Interpretation**

Hyperalbuminemia is of little diagnostic significance except in the case of dehydration. When plasma or serum albumin values fall below 2.0 g/dL, edema is usually present.

**Cautions**

Albumin values determined by the bromcresol green method may not be identical to the albumin values determined by electrophoresis.

**Clinical Reference**

1. Tietz Textbook of Clinical Chemistry. Edited by CA Burtis, ER Ashwood. Philadelphia, WB Saunders Company, 1999

2. Peters T, Jr: Serum albumin. In *The Plasma Proteins*. Vol 1. Second edition. Edited by F Putnam, New York, Academic Press, 1975

## Performance

### Method Description

The dye, bromcresol green (BCG), is added to serum in an acid buffer. The color intensity of the blue-green albumin-BCG complex is directly proportional to the albumin concentration and is determined photometrically.(Package insert: Roche Albumin reagent; Roche Diagnostic Corp., Indianapolis, IN, July 1999)

### PDF Report

No

### Day(s) Performed

Monday through Sunday

### Report Available

Same day/1 to 2 days

### Specimen Retention Time

1 week

### Performing Laboratory Location

Mayo Clinic Laboratories - Rochester Main Campus

## Fees & Codes

### Fees

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact [Customer Service](#).

### Test Classification

This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

### CPT Code Information

82040

### LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
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ALB	Albumin, S	1751-7
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Result ID	Test Result Name	Result LOINC® Value
ALB	Albumin, S	1751-7