General Information

Lab Order Codes: TP
Synonyms: Serum Protein
CPT Codes: 84155 – Protein; total, except refractometry
Test Includes: Total Protein concentration reported in g/dL.

Logistics

Test Indications: Useful for evaluating nutritional status, kidney disease, liver disease and many other conditions. If the total protein is abnormal, further tests must be performed to identify which protein fraction is abnormal to aid in identifying a specific diagnosis.
Lab Testing Sections: Chemistry
Phone Numbers: MIN Lab: 612-813-6280
STP Lab: 651-220-6550
Test Availability: Daily, 24 hours
Turnaround Time: 4 hours
Special Instructions: N/A

Specimen

Specimen Type: Blood
Container: Green top (Li Heparin) preferred
Alternate tube: SST (Marble, gold or red top tube)
Draw Volume: 0.6 mL blood
Processed Volume: 0.2 mL serum/plasma
Collection: Routine venipuncture. Mix tubes containing anticoagulant by gentle inversion.
**Special Processing:**
Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into a plastic sample cup. Analyze sample immediately or store at refrigerated temperatures.

**Patient Preparation:**
None

**Sample Rejection:**
Mislabeled or unlabeled specimen; gross hemolysis; grossly icteric

### Interpretive

<table>
<thead>
<tr>
<th>Reference Range:</th>
<th>Age:</th>
<th>Range (g/dL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 4 months:</td>
<td>3.6 - 7.4</td>
<td></td>
</tr>
<tr>
<td>4 months - 1 year:</td>
<td>4.3 - 7.3</td>
<td></td>
</tr>
<tr>
<td>1 - 2 years:</td>
<td>5.6 - 7.2</td>
<td></td>
</tr>
<tr>
<td>&gt;2 years:</td>
<td>6.0 - 8.0</td>
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</tbody>
</table>

**Critical Values:**
N/A

**Limitations:**
Excess patient hemolysis increases the total protein value, while excess bilirubin will decrease it.

**Methodology:**
Modified Biuret Reaction

**References:**

Siemens Dimension Vista TP Flex Insert PN 781073.001, REV D, 8/18/2008

**Updates:**
12/22/2011: Turnaround time updated, previously listed as 4 hours.
7/8/2016: Turnaround time updated, previously listed as 2 hours.