
Lab Dept: Chemistry

Test Name: PROTEIN, TOTAL

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

Reference Range:

Reference ranges by Method:	
Method Abbott	
0 – 14 days:	5.3 – 8.3
15 days – 1 year:	4.4 – 7.1
1 – 5 years:	6.1 – 7.5
6 – 8 years:	6.4 – 7.7
9 – 18 years:	6.5 – 8.1
Adult:	6.0 – 8.3

Critical Values: N/A

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

Methodology: ABBOTT: Biuret

References: Jacobs and DeMott Laboratory Test Handbook (2001) Lexi-Comp, Inc., Hudson, OH, 5th ed

Architect Total Protein Pkg Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL 60064, USA. December 2016

Alinity Total Protein Pkg Insert, Abbott Laboratories Diagnostics Division, Abbott Park, IL 60064, USA. December 2017

CALIPER pediatric reference range database (2019) Retrieved October 3, 2019, from <https://caliper.research.sickkids.ca/#/>

Updates:

12/22/2011: Turnaround time updated, previously listed as 4 hours.

7/8/2016: Turnaround time updated, previously listed as 2 hours.

10/18/2019: New backup instrumentation and related reference ranges.

11/24/2020: Updated method Abbott Alinity, removed method Siemens Vista