



PROTEIN-Biuret Method

TP

FOR BECKMAN CX AND LX SYSTEMS

INTENDED USE

For the quantitative determination of Total Protein in serum or plasma.

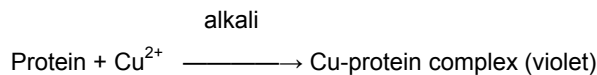
CLINICAL SIGNIFICANCE

Proteins form the major portion of the solutes dissolved in the plasma fluid. Total protein determinations are useful in detecting hyperproteinemia due to homoconcentration as occurred in dehydration, paraproteinemia, or monoclonal disease (multiple myeloma, macroglobulinemia, cryoglobulinemia) and in some chronic polyclonal diseases, liver cirrhosis, sarcoidosis, systemic lupus erythematosus, and chronic infections.

Conditions which result in serum protein decrease involving overhydration, protein loss through kidneys, severe burns, or in failure of protein synthesis (starvation, protein malnutrition, liver cell damage).

Serum protein determination is also useful when determining the calcium concentration because the nondiffusible calcium fraction is bound to protein and varies directly as the serum protein.

PRINCIPLE



SPECIMEN COLLECTION AND PREPARA

Serum is the specimen of choice. Avoid hemolysis. Lipemic sera may cause elevated results. Sera with BSP will cause falsely elevated results. Proteins in serum are stable for 1 week at room temperature, up to one month in the refrigerator and longer when stored in the freezer.

REAGENT

- | | | | |
|-----------------|------------------|------------|-------|
| 1. Package: R1: | 2×300 Tests | Beckman | CX-4 |
| | 4×1000ml | Beckman | CX-3 |
| | 2×2000ml | Beckman | LX-20 |
| 2. Components: | Cu ²⁺ | 12 mmol/L | |
| | NaOH | 0.6 mmol/L | |

STORAGE: Room temperature.

PRECAUTIONS:

1. For in vitro diagnostic use only.
2. Since all specimens are potentially infectious, they should be handled with appropriate precautions and practices in accordance with Biosafety level 2 as recommended by USA NIH manual Biosafety in Microbiological and Biomedical Laboratories, and in accordance with National or local regulations related to the safety precautions of such materials.
3. Each laboratory has to perform the quality control test to assure the results being reliable before running the specimen tests

PROCEDURES: The reagents are ready-to-use and performed in accordance with Beckman analyzer parameters and procedures.



NOTES:

It is generally recommended that each laboratory establish its own range of normal values for commonly performed tests.

EXPECTED VALUE: 60~82 g/L

REFERENCES:

1. Kingsley, G.R.J. Biol. Chem. 131:197, 1939.
2. Tietz, N.W., Fundamentals of Clin. Chem. p.188, W. B. Saunders, Philadelphia, 1970.
3. Dumas, B.T. and Biggs, H.G. In Standard Methods of Clinical Chemistry 7, 175, 1972.