

## Total Protein (TP) Test Kit (Biuret)

**【NAME】**

Total Protein (TP) Test Kit (Biuret)

**【INTENDE USE】**

This reagent is intended for the in vitro quantitative determination of Total Protein (TP) in human serum or plasma. Albumin is reducing often associated with Total protein, common in severe liver function damage, burns, bleeding, nephrotic syndrome, ulcerative colitis, malnutrition and so on. Synthesis of defects, malnutrition, protein malabsorption, protein loss syndrome. Increased the total protein found in multiple myeloma, acute dehydration, traumatic shock, such as chronic adrenocortical hypofunction.

**【METHODOLOGY】**

Every molecule which contains two or more formyl amine compounds (CONH<sub>2</sub> -) all can with alkaline copper solution, to form purple compound, which is called the biuret reaction. The peptide bond of amino acids (-CONH-) reacts with the biuret reagent, at the maximum absorption wavelength, the resultant purple shades absorbance is proportional to the protein content in the sample.

**【STABILITY AND STORAGE】**

Unopened, avoid light preservation in 2 ~ 8 °C, valid for 12 months;

Opened, avoid light preservation in 2 ~ 8 °C, valid for 1 month.

Reagent is not allowed frozen.

**【SPECIMEN COLLECTION AND HANDLING】**

It is best to fresh Serum or Heparin plasma.

Sample stability: 20~ 25°C preservation stability in 6 days;

4~8°C preservation stability in 4 weeks;

-20°C preservation can be stable for 12 months.

When the bilirubin concentration of sample ≤ 21mg/dl; hemoglobin hemoglobin ≤ 6.5g/L, triglyceride concentrations ≤ 2.6mmol/L, was not observed clearly disturbance.

**【APPLICABLE INSTRUMENT】**

Fully automatic biochemical analyzer.

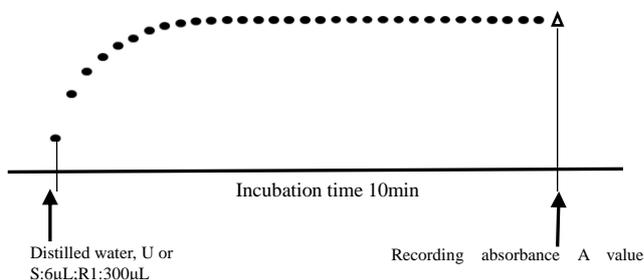
**【TESTING SPECIFICATION】**

The following system parameters are recommended. Individual instrument applications are available upon request from the Technical Support Group

Temperature	37° C
Cuvette light path	1.0cm
Primary Wavelength	546 nm
Secondary Wavelength	700nm
Assay Type	One Point End
Direction	Increase
Sample : Reagent Ratio	2:100
eg : Sample Vol	6 μL
Reagent Vol	300 μL
Linearity	0~ 120g/L
Testing	Deducting the reagent blank

**【OPERATION STEPS】**

R:Reagent S:Calibrator U:Sample



**【CACULATION】**

Use The Calibrator

$$\text{Sample TP concentration} = \frac{\text{Sample} \Delta A}{\text{Calibrator} \Delta A} \times \text{Standard concentration}$$

**【REFERENCE RANGE】**

60~88g/L

By clinical trials, choose no less than 100 newborn or adults blood specimens, tested by automatic biochemical analyzer, and then processing the testing value with statistical method, calculating out the reference range.

**【THE LIMITATIONS OF TESTING RESULTS】**

Total Protein (TP) testing is just one of the standard that clinician diagnose the patient. Clinical physicians should according to patients' bodies, history and other diagnostic program, to get comprehensive judgment.

**【THE INTERPRETATION OF TEST RESULTS】**

Human error, the processing of specimen, analysis instrument deviation, etc. all can affect the measurement result; When one sample deviates from the expected value too far, need to be tested again.

**【PERFORMANCE INDEX】**

1. Reagent blank absorbance ≤ 0.2, (546nm, 1cm optical path).
2. Precision: repeatability CV ≤ 5%; batch variations R ≤ 5%.
3. Accuracy: relative deviation ≤ 10%.
4. Linearity range: 0~ 120g/L, r ≥ 0.990.
5. Stability: All package reagent, unopened and avoid light, preservation in 2~8 °C, stable 12 months, once opened, avoid light, preservation in 2~8 °C, stable 30 days.

**【ATTENTION】**

1. Reagent contains sodium azide (toxic) preservatives, avoid contact with skin and mucous membrane. If necessary preventive measures should be taken use of reagents, reagent contact with skin and mucous membrane, please rinse with water, please go to a doctor if necessary.
2. The maximum linearity is 120g/L. If testing results is upper limit, dilute with 0.9% sodium chloride solution before test, results multiplied by the dilution ratio.
3. Liquid waste disposal: Suggest follow local regulations
4. Different batches reagents cannot mix, when replacing reagents batch number, please calibration again.