

Biuret Protein Quantification Kit

Cat. No. PQT-005 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Biuret is a method used to analyze proteins. The principle of the biuret reaction is that in the presence of a blue-colored alkaline copper sulfate solution, peptide bonds combine with copper ions to produce a blue-violet compound. The absorbance of this compound at 540 nm is proportional to the number of peptide bonds, so the protein content can be calculated. The compatibility of protein concentration measurement by the biuret method is also very good, unaffected by other components in most samples, but is susceptible to the influence of copper ion chelators. In addition, bilirubin, lipids, hemoglobin, and dextran have some interfering effects on the analysis of total serum protein by the double-cyclo-urea method.

Specification 500 T, 1,000 T

Testing Methods Enzyme labeler or spectrophotometer

Measurement Range 5-160 mg/ml

Applicable Protein samples

Applications Protein quantification

Instrument Preparation

1. Enzyme labeler or spectrophotometer
2. Pipette
3. Refrigerator
4. Icebox

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Reagent Preparation	1. Pure water 2. Saline
Consumables Preparation	1. Centrifuge tube 2. Pipette tips 3. Disposable gloves 4. 96-well plate
Usage	1. Protein standard powder is dissolved in protein standard preparation solution to obtain protein standard stock solution. The stock solution contains preservatives and does not affect the subsequent detection, the protein standard stock solution -20 °C long-term storage. 2. If the protein is to be tested and the protein standard is added to the biuret reagent A if the detection effect is found to be poor, it can be left at room temperature for 1 h or at 60°C for 15 min, and the color will be deepened with the extension of time. 3. When measuring the standard curve, it is found that there is no significant change in absorbance or color as the concentration of the standard increases, the possible reason is that the sample contains a copper ion chelating agent. 4. When the protein concentration is lower than 20 mg/ml, the color reaction is an inconspicuous blue; when it is greater than 40 mg/ml, it can show a clear blue-violet reaction. 5. The protein concentration of the sample should be greater than 1 mg/ml, 20 mg/ml is preferred. If you need to determine the low concentration of protein samples (1 mg/ml). 6. The absorbance of the blue-violet compound produced by the reaction of this product is related to the reagent batch, pH value, and reaction temperature. Therefore, it is recommended that a standard control be done for each measurement. 7. If an enzyme marker is not available, a spectrophotometer can also be used. The number of samples that can be measured per kit is significantly reduced when using a spectrophotometer to determine protein concentration.

8. if all wells are found to be dark purple in the assay, this may be due to the presence of a reducing agent in the sample, and the sample should be dialyzed or diluted appropriately.

Shelf-life 1 year

Storage 2-8°C

Notes

1. Prepare the protein standard -20°C frozen storage, pay attention to prevent microbial contamination. Avoid repeated freezing and thawing.
2. Please use the reagents as soon as possible after unpacking.

Affirmation This kit is intended for scientific research only and should not be used for clinical diagnosis or other purposes.

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