



Albumin (BCP) Microplate Assay Kit

Catalog # AS0125

Detection and Quantification of Albumin Content in Urine, Serum, Plasma and Other biological fluids Samples.

This instruction must be read in its entirety before using this product.

For research use only, Not for use in diagnostic procedures.

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I. INTRODUCTION

Albumin is the most abundant plasma protein in human. It accounts for about 60% of the total serum protein. Albumin plays important physiological roles, including maintenance of colloid osmotic pressure, binding of key substances such as long-chain fatty acids, bile acids, bilirubin, haematin, calcium and magnesium. It has anti-oxidant and anticoagulant effects, and also acts as a carrier for nutritional factors and drugs, as an effective plasma pH buffer. Serum albumin is a reliable prognostic indicator for morbidity and mortality, liver disease, nephritic syndrome, malnutrition and protein-losing enteropathies. High levels are associated with dehydration.

Albumin (BCP) Microplate Assay Kit is designed to measure albumin directly in biological samples without any pretreatment. The improved method utilizes bromocresol purple that forms a colored complex specifically with albumin. The intensity of the color, measured at 610nm, is directly proportional to the albumin concentration in the sample.

II. KIT COMPONENTS

| Component | Volume | Storage |
|--------------------|------------|---------|
| 96-Well Microplate | 1 plate | |
| Dye Reagent | 15 ml x 1 | 4 °C |
| Standard | Powder x 1 | -20 °C |
| Technical Manual | 1 Manual | |

Note:

Standard: add 1 ml distilled water to dissolve, the concentration will be 50 mg/ml. Store diluted standards at -20°C.

III. MATERIALS REQUIRED BUT NOT PROVIDED

1. Microplate reader to read absorbance at 610 nm
2. Distilled water
3. Pipettor
4. Pipette tips
5. Centrifuge
6. Timer

IV. SAMPLE PREPARATION

1. For serum, plasma or blood samples

Dilute serum and plasma samples with distilled water, then detect directly.

V. ASSAY PROCEDURE

Add following reagents in the microcentrifuge tube:

| Reagent | Sample | Standard | Blank |
|-----------------|-------------|-------------|-------------|
| Sample | 50 μ l | -- | -- |
| Standard | -- | 50 μ l | -- |
| Distilled water | -- | -- | 50 μ l |
| Dye Reagent | 150 μ l | 150 μ l | 150 μ l |

Mix, incubate 5 min at room temperature, record absorbance measured at 610 nm.

VI. CALCULATION

1. According to the volume of sample

$$\begin{aligned}\text{Albumin(mg/ml)} &= C_{\text{Standard}} \times V_{\text{Standard}} \times (\text{OD}_{\text{Sample}} - \text{OD}_{\text{Blank}}) / (\text{OD}_{\text{Standard}} - \text{OD}_{\text{Blank}}) / V_{\text{Sample}} \\ &= 50 \times (\text{OD}_{\text{Sample}} - \text{OD}_{\text{Control}}) / (\text{OD}_{\text{Standard}} - \text{OD}_{\text{Blank}})\end{aligned}$$

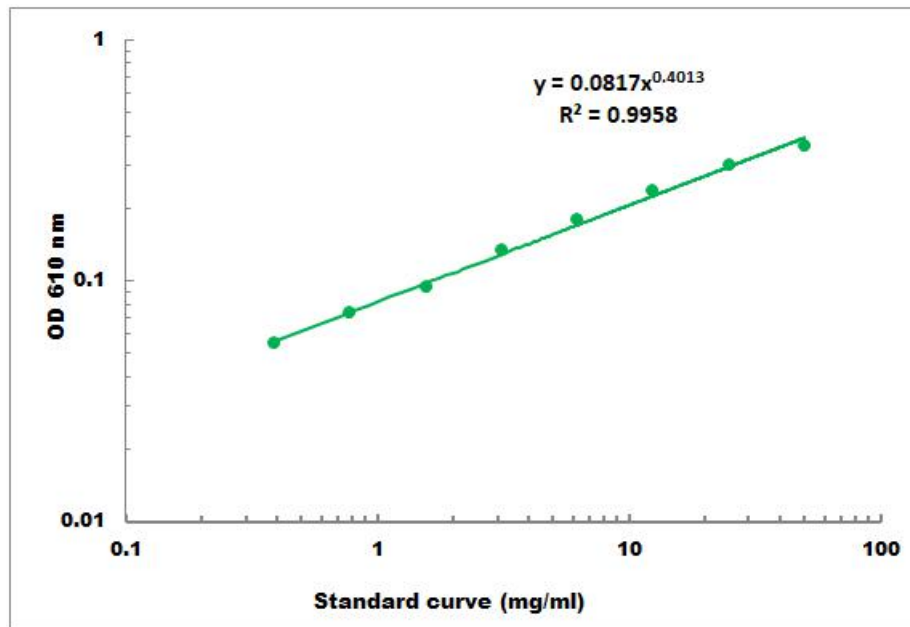
C_{Standard} : the standard concentration, 50 mg/ml;

V_{Standard} : the volume of standard, 0.05 ml;

V_{Sample} : the volume of sample, 0.05 ml.

VII. TYPICAL DATA

The standard curve is for demonstration only. A standard curve must be run with each assay.



Detection Range: 0.5mg/ml -50 mg/ml

VIII. TECHNICAL SUPPORT

For troubleshooting, information or assistance, please go online to www.sabbiotech.cn or contact us at techcn@signalwayantibody.com

IX. NOTES