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ab272526

BCP Albumin Assay Kit

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BCP Albumin Assay Kit datasheet:

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For quantitative determination of Albumin. In serum, urine and biological preparations.

This product is for research use only and is not intended for diagnostic use.

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1. Overview

BCP Albumin Assay Kit (ab272526) is a simple, direct and automation-ready procedure for measuring albumin in biological samples. BCP Albumin 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. The optimized formulation substantially reduces interference by substances in the raw samples

Sensitive and accurate: Use as little as 20 μL samples. Detection range 0.3 g/dL (45 μM) to 5 g/dL (750 μM) albumin in 96-well plate assay.

Simple and high-throughput. The procedure involves addition of a single working reagent and incubation for 5 min. Can be readily automated as a high-throughput assay for thousands of samples per day.

Improved reagent stability and versatility. The optimized formulation has greatly enhanced reagent and signal stability. Cuvette or 96-well plate assay.

Low interference in biological samples. No pre-treatments are needed. Assays can be directly performed on raw biological samples i.e., in the presence of lipid and protein.

2. Protocol Summary

Prepare all reagents and samples as instructed



Add Standards and Samples to appropriate wells.



Add Reagent to Samples and Standards.



Incubate 5 min at room temperature and read OD at 610 nm.

3. Precautions

Please read these instructions carefully prior to beginning the assay.

- All kit components have been formulated and quality control tested to function successfully as a kit.
- We understand that, occasionally, experimental protocols might need to be modified to meet unique experimental circumstances. However, we cannot guarantee the performance of the product outside the conditions detailed in this protocol booklet.
- Reagents should be treated as possible mutagens and should be handled with care and disposed of properly. Please review the Safety Datasheet (SDS) provided with the product for information on the specific components.
- Observe good laboratory practices. Gloves, lab coat, and protective eyewear should always be worn. Never pipet by mouth. Do not eat, drink or smoke in the laboratory areas.
- All biological materials should be treated as potentially hazardous and handled as such. They should be disposed of in accordance with established safety procedures.

4. Storage and Stability

Store kit at 4°C immediately upon receipt, apart from the Standard, which should be stored at -20°C. Avoid multiple freeze-thaw cycles. Kit has a storage time of 12 months from receipt, providing components have not been reconstituted.

Refer to list of materials supplied for storage conditions of individual components. Observe the storage conditions for individual prepared components in the Materials Supplied section.

5. Limitations

- Assay kit intended for research use only. Not for use in diagnostic procedures.
- Do not mix or substitute reagents or materials from other kit lots or vendors. Kits are QC tested as a set of components and performance cannot be guaranteed if utilized separately or substituted.

6. Materials Supplied

Item	Quantity	Storage Condition
Reagent	50 mL	+4°C
Albumin Standard (5 g/dL BSA)	2 mL	-20°C

7. Materials Required, Not Supplied

These materials are not included in the kit, but will be required to successfully perform this assay:

- Albumin standards other than BSA.
- Pipetting devices and accessories.
- 96-well clear plate with flat bottom (alternatively, 1 mL cuvettes may be used)
- Standard microplate reader - capable of reading absorbance at 590-630 nm (peak absorbance at 610 nm).

8. Technical Hints

- This kit is sold based on number of tests. A 'test' simply refers to a single assay well. The number of wells that contain sample, control or standard will vary by product. Review the protocol completely to confirm this kit meets your requirements. Please contact our Technical Support staff with any questions.
- Pre-rinse the pipette tip with the reagent, use fresh pipette tips for each sample, standard and reagent.
- Pipette standards and samples to the bottom of the wells.
- Add the reagents to the side of the tube to avoid contamination.
- Some Solutions supplied in this kit are caustic; care should be taken with their use.

9. Reagent Preparation

- Equilibrate all reagents to room temperature (18-25°C) prior to use.
- The kit contains enough reagents for 250 assays.

All reagents are supplied ready to use.

10. Standard Preparation

- Always prepare a fresh set of standards for every use.
- Prepare serially diluted standards immediately prior to use.

10.1 Dilute standards in distilled water as follows.

Standard #	Standard (μL)	H ₂ O (μL)	Albumin (g/dL)
1	100	0	5.0
2	80	20	4.0
3	60	40	3.0
4	40	60	2.0
5	30	70	1.5
6	20	80	1.0
7	10	90	0.5
8	0	100	0

Δ Note: Bromocresol purple reacts differently with albumins from different species. Use albumin from the species of the samples being tested as the standard. For example for human samples, use HAS. If not measuring BSA, prepare a 5 g/dL stock of the appropriate albumin in dH₂O.

Δ Note: Diluted standards may be stored at -20°C for future use.

11. Sample Preparation

Serum samples should be diluted 2-fold prior to assay.

12. Assay Procedure

- Equilibrate all materials and prepared reagents to room temperature prior to use.
- We recommend that you assay all standards, controls and samples in duplicate.

12.1 96-well plate procedure:

- 12.1.1 Dilute serum samples 2 fold. Transfer 20 μ L diluted standards and diluted samples to wells of a clear bottom plate. Store diluted standards at -20°C for future use.
- 12.1.2 Add 200 μ L Reagent and tap lightly to mix. Avoid bubble formation.
- 12.1.3 Incubate 5 min at room temperature and read optical density at 590-630 nm (peak absorbance at 610 nm).

12.2 Cuvette procedure:

- 12.2.1 Transfer 60 μ L Blank, Standards and samples to appropriately labeled tubes. Add 1000 μ L Reagent and tap lightly to mix.
- 12.2.2 Incubate 5 min at room temperature.
- 12.2.3 Transfer to cuvette and read optical density at 610nm.

Δ Note: If sample OD is higher than the OD for standard, dilute samples in distilled water and repeat the assay.

13. Calculations

- 13.1 Subtract blank OD (water, #8) from the standard OD values and plot the OD against standard concentrations.
- 13.2 Use the standard curve to determine the sample albumin concentration.

Conversions: 0.1 g/dL albumin equals 15 μ M, 0.1% or 1000 ppm.

14. Typical Data

Typical standard curve – data provided for demonstration purposes only. A new standard curve must be generated for each assay performed.

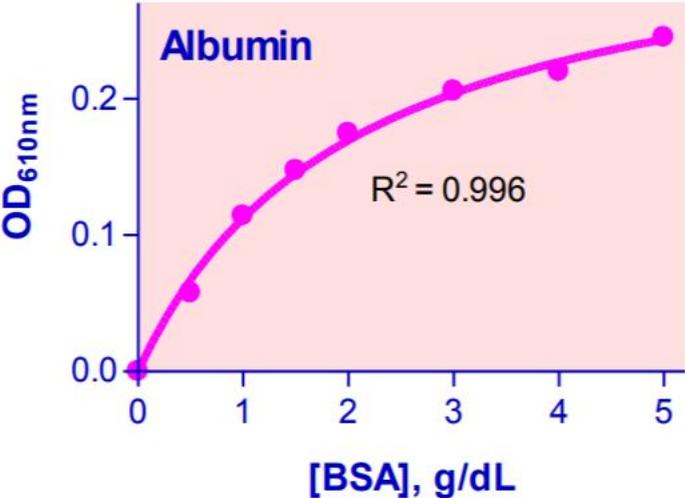


Figure 1. Example of BCP Albumin Assay Kit BSA standard curve.

15. Notes

Technical Support

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