

For Research Use Only. Not For Use In Diagnostic Procedures

Version 2.0

血清白蛋白检测试剂盒 (溴甲酸绿比色法)



Albumin Assay Kit (BCG Colorimetric)

Do not eat

Store at -20°C & in the dark

Cat.No.MBG5849

Size : 100 tests

Technical literature is available at : www.mesgenbio.com

E-mail MesGen Technical Services if you have questions on use of this system:

tech@mesgenbio.com

Introduction

The assay is based on the selective interaction between Bromocresol Green (BCG) and albumin forming a chromophore that can be detected at 620 nm. The signal is directly proportional to the amount of albumin present in the serum. BCG does not react with other abundant plasma proteins like IgG. The assay can detect as low as 0.1 mg/mL of albumin in serum samples. Albumin is the most abundant protein in human blood and is highly conserved among vertebrates. It plays a pivotal physiological role in maintenance of plasma osmotic pressure, vascular permeability, and transport of cholesterol, bile pigments, nitric oxide, metals, and other small molecules in the body. It also functions as a free radical scavenger of reactive oxygen and nitrogen species, triggers cell signaling processes, possesses anti-inflammatory and coagulatory effects.

Test Sample

Serum

Linear range

0.1 mg/mL - 6.25 mg/mL

Composition

Item	Size
Reaction Buffer	25 mL
BSA Standard (5 mg/mL)	10 mL

Procedure

1. Prepare standard curve dilution as described in the table in a microplate or microcentrifuge tubes:

Item	5 mg/mL BSA Standard (μL)	H ₂ O (μL)	Final concentration(μg/mL)
1	0	100	0
2	2	98	100
3	4	96	200
4	5	95	250
5	10	90	500
6	20	80	1000
7	50	50	2500
8	60	40	3000
9	80	20	4000
10	100	0	5000

2. Performing several dilutions of your sample to ensure the readings are within the standard value range. Use fresh samples for the most reproducible assay.
3. Add 20 μL of undiluted serum / BSA standard into desired well(s) in a 96-well plate.
4. Add 200 μL of Reaction Buffer into each standard and sample wells.
5. Incubate plate at room temperature for 5-10 minutes.
6. Measure absorbance at 620 nm in a plate reader.

Data Analysis

Note : Samples producing signals greater than that of the highest standard should be further diluted in appropriate buffer and reanalyzed, then multiply the concentration found by the appropriate dilution factor.

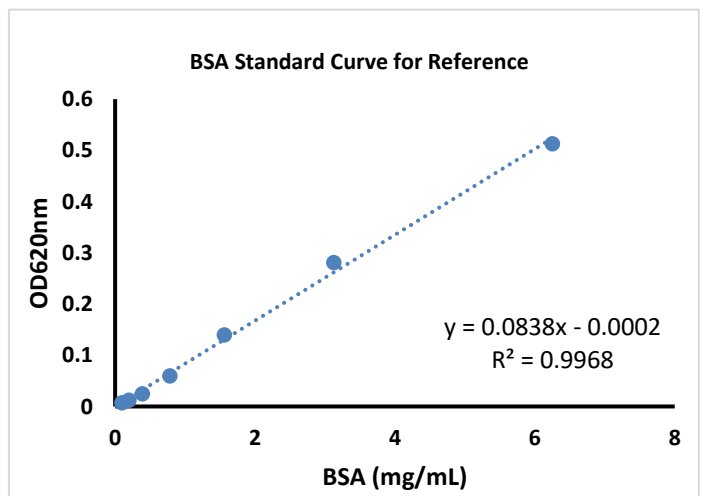
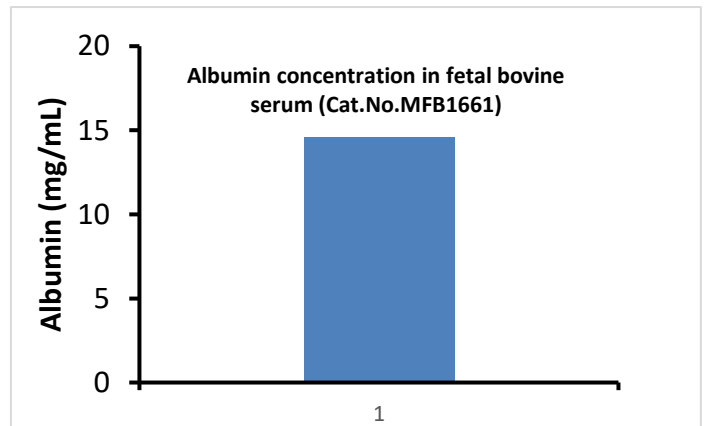
1. Subtract the mean value of the blank (Standard #1) from all standards and sample readings.
2. Draw the best smooth curve through these points to construct the standard curve.
Calculate the trendline equation based on your standard curve data.
3. Apply the corrected sample O.D. reading to the standard curve to get the concentration of Albumin in the test samples.

Storage condition

-20°C & in the dark.

Shelf life

1 year.



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