Hemezyme
GENUINE QUALITY, RELIABLE RESULTS.

ALBUMIN

B.C.G COLORIMETRIC TEST

INTENDED USE:
This reagent kit is intended for *"in vitro"* quantitative determination of ALBUMIN concentration in serum.

CLINICAL SIGNIFICANCE:

Albumin is a protein that is formed in the liver. Approximately 50-60 % of total protein is albumin, the rest is globulin. The albumin helps to maintain normal distribution of water in the body (colloidal osmotic pressure), and also helps in the transport of blood constituents such as ions, pigments, bilirubin, hormones, enzymes, and drugs. The ratio of albumin to globulin is an important indicator of certain disease states. Albumin level is decreased in several liver diseases, malabsorption, diarrhea, eclampsia and nephrosis. The level is increased in dehydration.

PRINCIPLE:

At pH=4.2, albumin bind with bromocresol green to produce a blue-green complex. The change in absorbance at 628 nm co-relates with the concentration of albumin.

REAGENT COMPOSITION:

Reagent 1: BCG reagent
Albumin standard: 4 gm/dl.

MATERIALS REQUIRED BUT NOT PROVIDED:
Clean & Dry Glassware
Micropipettes & Tips.
Colorimeter or Bio-Chemistry Analyzer.

SAMPLES:

Serum free of hemolysis.

STABILITY OF REAGENT

When Stored tightly closed at room temperature protected from light and contaminations prevented during their use; reagents are stable up to the expiry date stated on the label.

WORKING REAGENT:

The Reagent is ready for use

GENERAL SYSTEM PARAMETERS:

REACTION TYPE	End Point
WAVE LENGTH	630 nm
LIGHT PATH	1 cm
REACTION TEMPERATURE	37°c
BLANK / ZERO SETTING	Reagent
REAGENT VOLUME	1 ml
SAMPLE VOLUME	10 µl
INCUBATION TIME	5 Minutes
STANDARD CONCENTRATION	4 gm/dl
LOW NORMAL	3.8 gm/dl
HIGH NORMAL	5.4 gm/dl
LINEARITY	8 gm/dl

ASSAY PROCEDURE:
1. Take three clean, dry test tubes labeled B (blank), S (standard), T (test).
2. Set the instrument to zero with the blank, aspirate the standard to generate the factor.
3. Then aspirate the test sample one by one to read the result.

	BLANK	STANDARD	SAMPLE
REAGENT	1ml	1ml	1ml
STANDARD		10 µl	
SAMPLE			10 µl

Mix and read the optical density (A) after a 5-minute incubation at 37°C.

CALCULATION:

$$\text{Albumin Conc. (gm/dl)} = \frac{\text{OD of Sample}}{\text{OD of Standard}} \times \text{Conc. of Standard}$$

LINEARITY:
Reagent is Linear up to 8 gm/dl.
Dilute the sample appropriately and re-assay if Albumin Concentration exceeds 8 gm/dl. Multiply result with dilution factor.

REFERENCE NORMAL VALUE:

3.8 - 5.4 gm/dl

QUALITY CONTROL

For accuracy, it is necessary to run known controls with every assay.

LIMITATION & PRECAUTIONS:

1. Storage conditions as mentioned on the kit to be adhered.
2. Do not freeze or expose the reagents to higher temperature as it may affect the performance of the kit.
3. Before the assay bring all the reagents to room temperature.
4. Avoid contamination of the reagent during assay process.
5. Use clean glassware free from dust or debris.
6. Do not use the reagent if it is hazy or cloudy.

BIBLIOGRAPHY:

E.M. Gindler and J. O. Westgard Clin. Chem., (1973), 6,4.
J.O. Westgard, M.A. Poquette, Clin. Chem., (1973) 19, 647.

HEME DIAMED LLP
Maharashtra 401208
MFG LIC NO: MFG/IVD/2025/00073

HEME DIAMED LLP
2nd Floor, 4, 1981, Anjikath Lane, near Vallathol Junction Vazhakala, Thrikkakara, Edappally, Ernakulam, Kakkanad, Kerala 682021
MOB: +91 7395966499

+91 9771487148 www.hemediamed.com info@hemediamed.com