ESTROM Albumin - SLR (BCG Method)

ANGSTROM BIOTECH PVT. LTD

This reagent kit is for quantitative estimation of Albumin in serum.

PRINCIPLE:
Albumin acts as cation and it binds to anionic BCG dye to form blue green coloured complex in acidic medium. Absorbance of this complex is measured at 630 nm (600-650 nm) or with RED filter which directly corresponds to albumin concentration.

Albumin + BCG $\xrightarrow{\text{ACIDIC pH}}$ BCG Albumin complex

CLINICAL SIGNIFICANCE:
Low levels of Serum Albumin is observed in case of excessive protein loss from the kidney, skin, and intestine, reduced synthesis, malabsorption, dietary deficiency or liver disease. Hypoalbuminemia is also observed in chronic diseases like rheumatoid arthritis, hemorrhage, pregnancy, fever, Diabetes mellitus and hyperthyroidism. Higher levels of serum albumin is not clinically significant.

REAGENTS:
All the reagents are to be stored at R.T.

	No. of bottles 2x50 ml
Reagent 1 (Albumin Reagent)	2
Standard (4 gm/dl) store at 2-8° C. (Provided Separately)	1

SPECIMEN COLLECTION AND STORAGE:
- It is preferred to use fresh, clear unhemolysed serum.
- Serum is stable for four hours at room temperature and two days at 2-8° C.
- Plasma collected with EDTA or oxalate may also be used.

PRECAUTION:
- Estrom Albumin reagent is for In Vitro diagnostic use only.

REAGENT RECONSTITUTION:
This reagent is ready to use.

REAGENT STORAGE AND STABILITY:
Albumin reagent is stable at room temperature up to the expiry date stated on the label and standard at 2°- 8° C

GENERAL INSTRUMENT PARAMETERS:

Reaction Type	: End Point
Slope of Reaction	: Increasing
Wavelength	: 630 nm (600-650 nm)
Flowcell Temperature	: R.T. / 30° C
Reagent Volume	: 1.0 ml
Sample Volume	: 10 µl (0.01 ml)
Standard Conc.	: 4 gm/dl
Units	: gm/dl
Incubation	: 5 Minutes
Zero Setting	: Use reagent blank
Path length	: 1.0 cm

PROCEDURE:
Allow the sample and reagent to attain room temperature prior to use.

Dispense into test tubes	Blank	Standard	Test
Reagent 1	1.0 ml	1.0 ml	1.0 ml
Standard	--	10 µl	--
Sample	--	--	10 µl

Incubate at RT for 5 minutes. Mix well and read at 630nm (600-650 nm) or against red filter.

The reagent and standard/sample volumes may be doubled in case of instrument with larger cuvette capacity.

STABILITY OF REACTION MIXTURE:
The colour of the reaction mixture is stable for 30 minutes.

LINEARITY:
This method is linear for ALBUMIN concentration up to 10 gms/dl. For sample values exceeding the linearity limit, dilute the sample suitably with normal saline and repeat the assay. Apply proper dilution factor while calculation.

CALCULATION:

$$\text{Albumin Concentration (gms/dl)} = \frac{\text{Abs. Test}}{\text{Abs. std}} \times 4$$

REFERENCE VALUES:
Normal Serum Albumin = 3.2 – 5.5 gms/dl

BIBLIOGRAPHY:

- Webster. D. Clin. Chem... 23, 663 (1977)
- Kalpan A., Szabo L.L., Clinical Chemistry; Interpretation and Techniques 2nd edition (1983) Lea and Febiger, Philadelphia. P-403.

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⚠	Attention,see instructions for use		Consult Instructions For Use
IVD	For in vitro diagnostic use only	REF	Catalog #
	Store at RT	LOT	Lot Number
	Do not use if package is damaged		Date of Manufacturing
	Manufacturer		Use by