PATHOZYME DIAGNOSTICS

LIQVIPATH ALBUMIN

(BCG METHOD)

CAT NO.: ALB

Reagent kit for quantitative estimation of Albumin in Serum or Plasma.

DIAGNOSTICS SIGNIFICATION:

Albumin is the major plasma protein synthesized in liver. Major functions of albumin include regulation and distribution of extracellular fluid. Albumin contributes to the plasma colloidal osmotic pressure, counteracting the effect of the capillary blood pressure which tends to force water into the tissues. Albumin acts as a transport agent for a wide variety of substances such as hormones, lipids, vitamins, calcium and trace metals. Several procedures are currently available for the determination of albumin which includes dye binding. Due to simplicity, the BCG dye binding method is most commonly used. Albumin is based on modification of the Doumas method with an extended linearity.

PRINCIPLE:

In an acidic medium, albumin binds with Bromocresol Green causing Blue-Green BCG Dye. The blue green colour formed is directly proportional to the albumin present when measured at 630 nm (600-650nm or with RED filter).

Albumin + BCG $\longrightarrow$ BCG- Albumin Complex.

KIT PRESENTATION:

Pack Size	2 X 50 ml	2 X 100 ml	5 X 100 ml
Albumin Reagent	2 X 50 ml	2 X 100 ml	5 X 100 ml
Albumin Standard	1 X 1 ml	1 X 1 ml	1 X 1 ml

SPECIMEN COLLECTION:

Fasting, clear serum is preferred. EDTA Plasma also used.

REAGENT STORAGE AND STABILITY:

Albumin reagent is stable at room temperature until expiry date printed on the label. The standard is stable at 2-8^{0}C until the expiry date indicated on the label.

ASSAY PARAMETER:

Reaction	: End point	Sample Volume	: 10 µl
Wavelength	: 630 nm (600-650)	Reagent Volume	: 1.0 ml
Zero Setting	: Reagent Blank	Standard Conc.	: 5 gm/dl
Incub.Temp.	: RT	Linearity	: 10 gm/dl
Incub Time	: 5 min.	Unit	: gm/dl

PROCEDURE:

Pipette into TT	Blank	Standard	Test
Albumin Reagent	1.0 ml	1.0 ml	1.0 ml
Albumin Std (5 gm/dl)	--	10 µl	--
Sample (Test)	--	--	10 µl

Mix and incubate at RT for 5 minutes. Read absorbance of test (**T**) and standard (**S**) after 5 minutes against reagent blank at 630 nm (600-650 nm or with RED filter).

STABILITY OF FINAL REACTION MIXTURE:

The color of the final reaction mixture is stable for 1 hour.

CALCULATION:

Albumin concentration (gm/dl) = Abs T ÷ Abs S X 5

Many times a ratio of Albumin to Globulin is considered. For getting the ratio, calculate globulin by using

Globulin = Serum Total Protein - Serum Albumin.

NORMAL VALUES:

Serum Albumin: 3.6 to 5.4 gm/dl.

LINEARITY:

The procedure is linear up to **10 gm/dl**. If values exceed this limit, dilute the sample with Distilled Water and repeat the assay. Multiply the result with proper dilution factor.

REFERENCE:

1. RODKEY F. L., Direct Spectrophometric Determination of Albumin in Human Serum, Clinical Chemistry 11, 478-487 (1965).
2. KAPLAN A., SZABO L.L., Chemistry; Clinical Interpretation and Techniques, 2nd Edition (1983) Lea & Febiger, Philadelphia, P-403.

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Expiry Date | IVD In-Vitro Diagnostics Use | Storage | Mfg. Date | LOT Batch Number | REF Catalogue Number | See Package Insert

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