

## **Albumin Estimation Kit**

# **High-Q Albumin-ML**





#### **Intended Use:**

Kit for the quantitative determination of albumin in human serum and plasma.

## Clinical Significance:

Hypoalbuminemia is found in any liver impairment (e.g. hepatitis), nephrosis, certain chronic diseases (e.g. rheumatoid arthritis), malnutrition, severe hemorrhage and pregnancy. Lowering of serum albumin usually results in lowering of A/G (Albumin/Globulin) ratio. Elevated serum albumin levels apart from indicating dehydration are generally of little significance.

# Principle:

Albumin binds with Bromocresol green Green (BCG) in a buffered medium to produce a green colored complex. The intensity of this color is proportional to the Albumin concentration.

#### Storage and Stability

All the reagents are to be stored at 2-8°C and are stable till the expiry date mentioned on the label.

#### Specimen:

Serum/Heparinised or EDTA Plasma.



#### Procedure:

Pipette into test tubes labelled Blank (B), Standard (S) and Test (T) as follows:

Reagent	В	S	Т
1. Albumin Reagent	1.0 ml	1.0 ml	1.0 ml
2. Albumin Standard	-	10 µl	-
(Conc. 4 gm/dL)			
Specimen	- 11	-	10 µl

Mix well and Incubate at Room Temperature for 5 Minutes.

Read absorbance of Standard (S) and Test (T) against Blank (B) at 578 nm. (570-630).

#### Calculations:

1. Albumin (Ab)=	$\Delta \text{Ibumin}(\Delta h) =$	Abs. of T		(in gm/dl)
	Abs. of S	_ ^ +	(iii giii/di)	
	in am/dl	ADS. 01 3		

3. A/G Ratio = 
$$\frac{\text{Albumin in gm/dl}}{\text{Globulin in gm/dl}}$$

**Note**: To calculate Globulin and A/G Ratio user should estimate total protein concentration of the sample also using High-Q Total Protein- ML kit.

#### **Normal Range:**

 Albumin
 : 3.5–5.4 gm/dL

 Globulin
 : 2.3–3.6 gm/dL

 A/G Ratio
 : 1.0–2.3 gm/dL

It is recommended that laboratories establish their own normal range.

## **System Parameters:**

Reaction type : End Point Reaction Slope : Increasing

Wave length : 578 nm (570-630)

Flow cell Temp. : 37°C
Sample volume : 10 µl
Reagent volume : 1000 µl

Reagent volume : 1000 µl
Standard concentration : 4
Units : gm/dl
Blanking with : Reagent
Low normal : 3.5
High normal : 5.4
Linearity : 10



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**BCG Method** 



### **Quality Control:**

To ensure adequate quality control, the use of commercial reference control serum is recommended with each assay batch. Use of Quality Control material checks both, the instrument and the reagent functions.

#### Notes:

- In Albumin assay, standard controls containing human Albumin are to be employed with this procedure, since the absorptivity of the BCG Albumin complex differs for Albumin of different species.
- If a large volume of reagent is required for absorbance reading, requisite volumes can be taken in multiples keeping the same ratio of reagents to specimen / standard.
- 3. As with all the diagnostic procedures, the Physician should evaluate data obtained by the use of this kit in light of other clinical information.

#### References:

- 1. Doumas, B.T. (1971) Clin. Chem Acta 31, 87.
- Doumas, B.T. (1978) Clin. Chem Acta 23, 663
- 3. Webster, O. (1977) Clin. Chem 21, 1159 N.





Manufactured in India by:
Pariksha Biotech Pvt Ltd,
Plot no.1/B-14, SVICE,
Balanagar,
Hyderabad-500037
Telangana State



# P-ALB-200 2 x 100 ml

**Ordering Information** 

Ref./Cat. No.

# **Product Features**

Presentation

Mono Reagent

· Liquid Stable, Ready to use Mono Reagent

Pack Size

- · One step End Point assay
- · Aqueous Albumin standard provided (Standard Conc: 4gm/dL)
- · Linearity: 10 gm/dL
- Measuring Wavelength 578 nm (570 630 nm)
- · Serum or Heparinized/EDTA Plasma as Specimen
- Available as multipurpose reagents and dedicated system packs

#### Symbols used with IVD devices



