ALBUMIN

Colorimetric Method (BCG)
Liquid Reagent ready to use

REF 12201240 R 12X20mL

IVD

PRODUCT CODE: ALB-12D20

Company with Quality System ISO 9001 – ISO 13485 Certified by LMS

INTENDED USE

Quantitative determination of Albumin in serum and plasma.

PRINCIPLE

In a pH 3.8 buffered solution the albumin present inthe sample reacts with bromocresol green (BCG) and causes a color change. The color intensity is proportional to the albumin concentration present in the serum or plasma.

SAMPLE

Serum, plasma eparinate. Do not use hemolyzed samples.
Albumin in the sample is stable 1 week at 15-25°C and over 1month at 2-8°C avoiding bacterial contamination.

The samples with presence of fibrin should be centrifuged.

KIT COMPONENTS

Reagent (A) ALB Volume = 100/250 ml	Buffer pH 3.8 BCG	100 mmol/l 7 mmol/l
Standard ALB Volume = 5 ml	Bovine Albumin	Value on label

The reagents are stable until the expiration date indicated on the label if stored at 2-8°C and protected from light. Do not use over expiry date.

Once opened reagents are stable for 2 months at 2-8°C if contamination is avoided. Do not freeze. Keep bottles closed when not in use.

REAGENT PREPARATION

Liquid reagent to be brought to room temperature (15-25°C) before use.

PRECAUTIONS AND WARNINGS

Reagent may contain some non-reactive and preservative components. It is suggested to handle carefully it, avoiding contact with skin and swallow.
Use the normal precautions required in the laboratory.
Dispose of waste according to local laws.

PROCEDURE

Wavelength:	630 nm (600 – 640)
Lightpath :	1 cm
Temperature:	25, 30, 37°C
Reading:	against blank reagent
Method:	Increasing End Point
Sample/Reagent:	1/150

pipette:	blank	sample	standard
Reagent (A)	300 µl	300 µl	300 µl
water	3 µl		
sample		3 µl	
standard			3 µl

Mix, incubate 5 minutes at room temperature (15-25°C), read absorbances of sample (Ax) and standard (As) against blank.

Reaction volumes can be proportionally varied.
This method describes the manual procedure to use the kit.
For automated procedure, ask for specific applications.

RESULTS CALCULATION

Albumin g/dl = Ax/As x 3 (standard value)

Conversion Factor: g/dl x 144.9 = µmol/l

EXPECTED VALUES

Serum/plasma: 3.5 – 5.5 g/dl (507 - 797 µmol/l)

Each laboratory should establish appropriate reference intervals related to its population.

QUALITY CONTROL

You must perform the controls at each kit's use and verify that the values obtained are within the reference range reported in the operating instructions. For this purpose we recommend the use of Sicurobio control sera: ACUTROL 1 (REF. SB-8334) and ACUTROL 2 (REF. SB-8335).

PERFORMANCE

Sensitivity: the sensitivity of the method is: 0.1 g/dl.
Linearity: the method is linear up to 6 g/dl. For higher values, dilute the sample 1:2 and multiply the result by 2.
Precision intra-assay:

	Level 1	Level 2	Level 3
Mean (g/dl)	1.65	3.76	5.86
SD	0.014	0.037	0.045
CV %	0.83	0.99	0.77

Precision inter-assay:

	Level 1	Level 2	Level 3
Mean (g/dl)	1.66	3.90	6.00
SD	0.007	0.021	0.030
CV %	0.40	0.53	0.50

Interferences: bilirubin does not interfere up to 20 mg/dl.
A triglyceride concentration exceed 300 mg/dl causes overestimated values; for lipemic sera, prepare a blank sample with saline.
The presence of hemoglobin (hemolysis) results in overestimated values.
Samples containing ampicillin cause false results.
Correlation against a reference method:
Y = 0.9342x + 0.1617 r = 0.9948

REFERENCES

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