ALBUMIN BCG

Colorimetric determination with green bromocresol (BCG) of Albumin in serum and plasma

TEST SUMMARY

In citrate buffer, forms with green bromocresol (BCG) a coloured compound which intensity is proportional to the albumin concentration present in the sample.

SAMPLES

Serum or plasma (heparin or EDTA).
Stability: 1 month at 2-8°C, 15 days at 15-25°C.

REAGENTS

Sole Reagent:	Citrate Buffer 7.5 mmol/l; BCG ≥ 150 µmol/l; sodium azide 0.05%.
Standard:	Albumin 4 g/dl; sodium azide 0.05%; verified against NIST reference standard.

MATERIAL REQUIRED BUT NOT SUPPLIED

Normal laboratory equipment. Spectrophotometer UV/VIS with thermostatation. Automatic Micropipette. Cuvette in optical glass or monouse in optical polystyrene. Distilled water.

PRECAUTIONS

Reagent may contain not reactive and conservative components. It is opportune to avoid contacts with the skin and do not swallow.
Perform the test according to the general "Good Laboratory Practice" (GLP) guidelines.

REAGENTS PREPARATION

Reagents are ready to use and are stable until expiration date on label, stored at 4-30°C.
Warning: do not contaminate reagents after the vials opening.

PROCEDURE

Kind of analysis:	End point
Reading time:	5 minutes
Colour stability:	60 minutes
Wavelength:	546 nm (520-570)
Temperature:	20-25°C
Lightpath:	1 cm
Zero:	Blank Reagent

REAGENTS	BLANK	STANDARD	SAMPLE
Sole Reagent	2 ml	2 ml	2 ml
Distilled water	10 µl	--	--
Standard	--	10 µl	--
Sample	--	--	10 µl

Mix and incubate at 15-25°C for 5 minutes.
Read the absorbance against Blank at 546 nm.
Colour is stable for 60 minutes.

CALCULATION

$$\text{Albumin g/dl} = \frac{\text{A (sample)}}{\text{A (standard)}} \times 4$$

$$\text{Albumin g/l} = \frac{\text{A (sample)}}{\text{A (standard)}} \times 40$$

EXPECTED VALUES

3.5 – 5.0 g/dl (35 – 50 g/l)

Every laboratory should establish own reference intervals in accordance with own population.

NOTES

- In case of clear hemolysis or lipemia, is reccomended the execution of a blank sample: mix 1 ml of physiological solution and 10 µl of sample, read absorbance against distilled water and subtract it to the absorbance value mesured in the test.
- If the results are incompatible with clinical presentation, they have to be evaluated within a total clinical study.
- Only for IVD use.

CALIBRATION/ QUALITY CONTROL

It is suggested to perform an internal quality control. For this purpose the following control sera on human base are available on request:

QN 0050 CH **10 x 5 ml**
Control Sera normal values

QP 0050 CH **10 x 5 ml**
Control Sera pathological values

TEST PERFORMANCE

Precision
The analysis underline intra-assay CV ≤ 4.5 % and inter-assay CV ≤ 7 %.

Linearity
The method is linear up to 7 g/dl.
If the values is exceeded, it is suggested to dilute the sample 1+1 with saline and to repeat the test, multiplying the results by 2.

Interferences
No interference was observed by the presence of:

hemoglobin	≤ 20 mg/dl
bilirubin	≤ 20 mg/dl

WASTE DISPOSAL

Product is intended for professional laboratories. Waste products must be handled as per relevant security cards and local regulations.

PACKAGING

CODE CC00200	(300 TESTS)	
Sole Reagent	6 x 100 ml	(liquid)
Standard	1 x 3 ml	(liquid)

REFERENCES

Rodkey F.L., Lin. Chem. 10:606 (1964).
Dumas B.T., et, al., Chim. Clin. Acta 31:87 (1971).

MANUFACTURER

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SYMBOLS

IVD	Only for IVD use
LOT	Lot of manufacturing
REF	Code number
	Storage temperature interval
	Expiration date
	Warning, read enclosed documents
	Read the directions
	Biological risk

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