TOTAL PROTEINS

Colorimetric Method - Biuret

Liquid Reagent ready to use

REF. 0046/2	**2x 100 ml**
REF. 0046	**4x 100 ml**
REF. 0044	**2x 250 ml**
REF. 0042	**4x 250 ml**
REF. 0043	**1x1000 ml**

CE

IVD

Azienda certificata DNV

GIESSE DIAGNOSTICS

INTENDED USE

Quantitative determination of total proteins in serum and plasma.

PRINCIPLE

In an alkaline medium, proteins form a blue-violet complex with Cu (II) ions. The color intensity is proportional to the concentration of total proteins in the sample.

SAMPLE

Serum, plasma with heparin. Do not use hemolyzed samples.

Proteins in the sample are stable one week at room temperature (15-25 °C) and one month at 2-8°C.

KIT COMPONENTS

Reagent (A) PT Volume = 100/250/1000 ml	Sodium hydroxide Copper sulphate Potassium iodide Potassium sodium tartrate	1.90 mmol/l 8 mmol/l 33 mmol/l 50 mmol/l

Optional: Calibrator for Total Proteins REF. 8801 o 8801/6

The Calibrator is not included in the kits.

Calibrator (B) PT Volume = 5 ml	Total Proteins (Albumin) Sodium azide	6 g/dl 9 mmol/l

The reagents are stable until the expiration date if stored at temperatures indicated on the label and protected from light. Once opened, the reagent are stable 2 months if contamination is avoided.

Keep bottles closed when not in use.

REAGENT PREPARATION

Liquid Reagent ready to use.

PRECAUTIONS AND WARNINGS

The Reagent (A) contains **Sodium hydroxide and Potassium iodide** which can cause an allergic reaction.

According to current regulation, is classified as: **C-Corrosive. R34**-Causes burns. **S26**-In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. **S45**-In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). **S36/37/39**-Wear suitable protective clothing, gloves and eye/face protection.

Dispose of waste according to local laws.

PROCEDURE

Wavelength:	546 nm (530 – 550)
Lightpath:	1 cm
Temperature:	25, 30, 37°C
Reading:	against blank reagent
Method:	Increasing End Point
Sample/Reagent:	1/100

pipette:	blank	Sample	calibrator
Reagent (A)	1000 µl	1000 µl	1000 µl
water	10 µl		
sample		10 µl	
calibrator			10 µl

Mix, incubate at 25, 30, 37°C for 10 minutes and read against blank reagent the absorbance of the sample (Ax) and the calibrator (Ac).

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

Total Proteins g/dl = Ax/Ac x 6 (calibrator Value)

EXPECTED VALUES

Serum/plasma: 6.6 – 8.3 g/dl

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 control sera: PRECISENORM (REF.6000) and PRECISEPATH (REF.6001).

PERFORMANCE

Sensitivity: the sensitivity of the method is: 0.1 g/dl.

Linearity: the method is linear up to 13 g/dl. For higher values, dilute with saline 1:2 the sample and multiply the result by 2.

Precisione nella serie:

	Level 1	Level 2	Level 3
Mean (g/dl)	2.58	5.08	9.75
DS	0.043	0.044	0.110
CV %	1.65	0.87	1.13

Precisione tra le serie:

	Level 1	Level 2	Level 3
Mean (g/dl)	2.65	5.36	10.12
DS	0.028	0.052	0.156
CV %	1.04	0.97	1.54

Interferences: bilirubin does not interfere up to 30 mg/dl. A triglycerides concentration exceed 300 mg/dl increases the reading.

Hemoglobin in concentration > 0.3 mg/dl increases the reading.

Correlation against a reference method: Y = 1.0068x - 0.0670 r = 0.9974

REFERENCES

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