

# BioMed-Total Protein

## Colorimetric, Endpoint



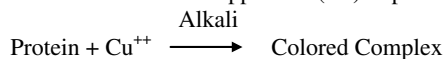
**REF:** TP118250 ( 1x250 ml )  
TP118240 ( 2x120 ml )

### INTENDED FOR USE

For the quantitative determination of Total Proteins in serum .

### PRINCIPLE:

Proteins reacts with copper ions( II ) to produce a blue violet color compound in alkaline medium .



The color intensity is proportional to the concentration of total proteins present in the sample

### SPECIMEN COLLECTION:

Non hemolyzed fresh serum , plasma with heparin .

Do not use lipemic or hemolyzed samples .

Total protein in serum or plasma is reported stable for one week at room temperature ( + 15-25°C. ) , and approximately one month when stored in the refrigerator at - 20°C . and protected against evaporation .

Shake and bring the samples at room temperature ( + 15-25°C ) before using.

### REAGENT COMPOSITION:

R1 Standard	Bovine Albumin	6 g/dl
R2 Corrosive	Sodium hydroxide	1-5%
	Copper sulphate	< 1%
	Potassium iodide	6 mmol/l
	Potassium Sodium tartrate	12 mmol/l

### PACKAGE : Collection & storage .

Store at temperature indicated upon the label .

Stable until the expiration date reported upon the package .

After the unsealing and the taking of the reagent, it is advised to close up the bottle immediately in order to avoid evaporation , direct light exposure and bacterial contamination .

### PRECAUTIONS & WARNING:

**Avoid pipetting with mouth.**

The Reagent ( R2 ) , according to current regulation , is classified as : **C-Corrosive**

**R34**-Causes burns .

**R52/53**-Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**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)

**S60**-This material and its container must be disposed of as hazardous waste.

**S61**-Avoid release to the environment Refer to special instructions/Safety data sheets.

**S36/37/39**-Water suitable protective clothing, gloves and eye/face protection .

**Contents :** sodium hydroxide ; potassium iodide : may produce an allergic reaction .

The total concentration of non active components ( preservatives, detergents, stabilizers ) is below the minimum required for citation .

Anyway handle with care , avoid ingestion , avoid contact with eyes , skin and mucous membranes

The samples must be handle as potentially infected from GIV or Hepatitis .

### REAGENT PREPARATION & STABILITY :

Ready to use liquid reagent . Stability indicated upon the label .

### REQUIRED MATERIALS NOT PROVIDED :

General Laboratory Equipment and Instrumentations .

### PROCEDURE :

Wave length : 546 nm ( 530-550 )  
Optical path: 1 cm light path  
Temperature : + 25/30/37° c .  
Reading : Against blank reagent  
Assay Type End Point

#### Pipeting in tubes :

	BLANK	STANDARD	SAMPLE	
Reagent (R2)	1000	1000	1000	μL
Distilled water	20			μL
Standard		20		μL
Sample			20	μL

Mix , incubate for 5 min at 37°C or 10 min at room temperature ( +15-25°C) and read sample and calibrator extinction .

Color is stable at least 60 min at room temperature.

Volumes can be proportionally modified .

This methodology describes the manual procedure to use the kit . for automated procedure, ask for specific application .

### CALCULATON :

$$\text{Total Protein g/dl} = \frac{(\text{A}) \text{ Sample}}{(\text{A}) \text{ calibrator}} \times 6$$

### EXPECTED VALUE :

**SERUM :** 6.6 – 8.3 g/dl

The above mentioned values are to be considered as a reference .

It is strongly recommended that each laboratory establish its own normal range

### WASTE DISPOSAL :

The disposal of the product must be in accordance with local regulation concerning waste disposal .

### QUALITY CONTROL:

It is recommended to execute the quality control at every kit utilization to verify that values are within the reference range indicated by the methodology.

### REFERENCES :

Kingsley , G, R : Bio , chem. , 131, 197-200 ( 1939 ) .  
Yatzidis , H , L : J , Clin , Chem, 23/908 ( 1987 ) .  
Vassault, A et al , Ann , Biol Clin , 44, 686 , ( 1986 )

### PERFORMANCE :

MEASURE INTERVAL / LINEARITY:	0.27 – 15 g/dL
LOWEST MEASURABLE LIMIT (2DS):	0.27 g/dL
SENSITIVITY :	1g/dL = 0.0274A a 546nm

#### INTRA-ASSAY PRECISION : n=20

LOW LEVEL	M = 2.71 g/dL	C.V = 2.90%
MEDIUM LEVEL	M = 5.14 g/dL	C.V = 2.39%
HIGH LEVEL	M = 12.56 g/dL	C.V = 1.94%

#### INTER-ASSAY PRECISION : n=20

LOW LEVEL	M = 2.70 g/dL	C.V = 0.36%
MEDIUM LEVEL	M = 5.21 g/dL	C.V = 1.35%
HIGH LEVEL	M = 12.32 g/dL	C.V = 1.92%
INTER ANALYZED	3.6-9.1 g/dL	
CORRELATION	r = 0.9879	n = 60
LIN. REGRESSION	y = 0.9968x + 0.182	n = 60

### INTERFERENCE :






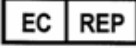



Interference are negligible up to:			
Glucose	500mg/dL	Bilirubin	30 mg/dL
Triglycerides	> 300mg/dL	Hemoglobin	> 0.3 mg/dL
Increase the reading		Increase the reading	

### LIMITATIONS :

Lipemic and hemolyzed serum , should have a serum blank .

For concentration higher than 15 g/dl , repeat the measure on a sample diluted 1:2 with saline solution and multiply the results  $\times 2$

For a thorough evaluation of the interfering substances , consult : Young , D,S,et al , Clin , Chem , 21:1D ( 1975 ) .

	Consult Instructions for Use
	Caution, consult accompanying Documents
	In Vitro Diagnostic Medical Device
	Temperature limitation
	Manufacturer
	Authorized Representative in the European Community
	Catalogue number
	Batch code
	Use by

 <b>Egy-Chem</b> for lab technology Head Office: 83 Abdel-Hamid Badawy St.Heliopolise, Cairo, Egypt Tel :202- 26236727 / 202- 26236598 Fax :202- 26240986 Website: <a href="http://www.egy-chem.com">www.egy-chem.com</a> E-mail: <a href="mailto:sales@egy-chem.com">sales@egy-chem.com</a> or <a href="mailto:sales@egy-chem.net">sales@egy-chem.net</a>	  <b>MDSS GmbH</b> Schiffgraben 41 30175 Hannover, Germany
---	--