TOTAL PROTEINS urine Liquid

Coomassie Blue Method

2 x 100 ml CL51-200S

INTENDED USE

Kit for colorimetric determination of total proteins in urine and liquor.

CLINICAL MEANING

An increase of proteins in urine indicates pathological conditions such as renal or cardiac disease and thyroid disorders: in normal conditions, proteins are almost entirely retained through glomerular filtration.

PRINCIPLE

In a buffered solution, proteins in the sample reacts with Coomassie Blue, causing a color change whose intensity is proportional to the concentration of the proteins present in liquor or in urine.

SAMPLE

Urine and liquor.
Collect a sample of the 24 hour urines.
Stability: 7 days at 2-8°C.

REAGENTS

Only for in Vitro diagnostics.
Liquid mono-reagent, ready to use.
Reagents marked by an asterisk (*) contain dangerous substances.

Package contents	**CL51-200S**
***REAGENT 1** Orthophosphoric acid 1.2 M, Coomassie Blue 1mM	2 x 100 ml
STANDARD (Std) Human Albumin 100 mg/dl	1 x 4 ml

STABILITY: if stored away from light at 2-8°C, these reagents are stable up to the expiration date indicated on the label. Keep the bottles closed when not in use.

NECESSARY ITEMS – NOT PROVIDED

Usual laboratory equipment: UV/VIS Spectrophotometer with temperature control; automatic micropipettes; Optical glass cuvettes or, alternatively, disposable ones in optical polystyrene; Saline solution.

MANUAL ASSAY PROCEDURE

Method:	endpoint
Wavelength:	592 nm (575-610 nm)
Optical path:	1 cm
Temperature:	room temperature
Reaction time:	immediate
Reading:	against blank reagent
Sample/Reagent Ratio:	1/100

Bring the reagent to the chosen temperature for the analysis.

Pipette into test tubes:

	Blank reagent	Sample	Standard
Distilled water	10 µl	-	-
Standard	-	10 µl	-
Sample	-	-	10 µl
Reagent 1	1,0 ml	1,0 ml	1,0 ml

Mix and incubate at the chosen temperature and read the absorbance of the standard (AbsStd) and of the sample (AbsC) against blank reagent.

The resulting colour is stable for at least 60 minutes.

CALCULATION

Urine (mg/24h) = (As/Astd) x 1000 x L 24h urine

Liquor (mg/dL) = (As/Astd) x 100

REFERENCE VALUES

Urine: 40 - 150 mg/24 hours
Liquor: 15 - 45 mg/dL

These values are only for reference.
Each laboratory should define its own reference values for this method.

QUALITY CONTROL

All Clinical Chemistry laboratories should implement a quality control program. Control urine of human origin are available for this purpose on request. Contact FAR for information.

PERFORMANCE CHARACTERISTICS

Sensitivity
The method discriminates up to 0,3 mg/dl.
Linearity
The method is linear up to 400 mg/dl.
For higher values, properly dilute the sample with saline solution, repeat the determination and multiply the result by the dilution factor.
Precision

Within run (n=10)	Average [mg/24h]	SD	CV %
Sample 1	23,8	0,178	0,75
Sample 2	182,6	1,74	0,95

Within run (n=20)	Average [mg/24h]	SD	CV %
Sample 1	29,5	0,30	1,02
Sample 2	155,5	2,82	1,82

Interferences
Up to ≤ 500 mg/dl ascorbic acid does not interfere.

Correlation against a reference method
FAR kit to determine total proteins (Coomassie Blue method) shows a correlation coefficient of 0.991 in comparison to another kit available on the market.

DISPOSAL

Dispose of reagents and of waste according to local regulations.

WARNINGS AND PRECAUTIONS


Signal word: Danger
Reagent 1 causes skin irritation (H315) and causes severe eye irritation (H319).
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338).

REFERENCES

1. Rodkey F. L., Clin. Chem. 10, 643 (1964)
2. Bradford M.M., Anal. Biochem. 72, 248 (1976)
3. Gustafsson J. E. C., Clin. Chem. 22, 616 (1976)

MANUFACTURER

FAR
Via Fermi, 12 - 37026 Pescantina - VERONA - ITALY
tel +39 045 6700870/6700871 – fax +39 045 7157763
website http://www.fardiag.com
e-mail: fardiag@fardiag.com

KEY SYMBOLS

IVD	in Vitro diagnostic medical device
LOT	batch number
REF	catalogue number
	temperature limits
	use by
	caution
	consult accompanying documents

Issue 01 - Jan 2021 RR