

MICROPROTEINS-B

Colorimetric Method Pyrogallol Red

REF. 0074 4x100 ml



Azienda certificata DNV



INTENDED USE

Quantitative determination of total proteins in urine and CSF.

PRINCIPLE

The proteins, at acid pH values, form with pyrogallol red a colored complex, which color intensity, at 600 nm, is directly proportional to the concentration of proteins in the samples.

SAMPLE

Urine 24 ore, CSF

The samples are stable 3 days at 2-8°C.

KIT COMPONENTS

| | | |
|--------------------------------|--|--|
| Reagent (A) Volume = 100 ml | buffer Pyrogallol Red Sodium molybdate Sodium oxalate | 100 mmol/l < 0.1 mmol/l < 1% < 1% |
|--------------------------------|--|--|

Optional: Calibrator for Microproteins REF. 8816 or 8816/6

The Calibrator is not included in the kit REF. 0074.

| | | |
|-----------------------------|---------------------|----------------|
| Calibrator Volume = 5 ml | Albumin / Globulins | Value on label |
|-----------------------------|---------------------|----------------|

The reagent is stable until the expiration date indicated on the label if stored tightly closed at 15-25°C and protected from light.

Do not store Reagent (A) in refrigerator, the dye may precipitate.

Once opened, the reagent is stable 2 months if contamination is avoided.

Keep bottles closed when not in use.

REAGENT PREPARATION

Liquid Reagent, ready to use.

PRECAUTIONS AND WARNINGS

Reagents 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: | 600 nm (578 - 610) |
| Lightpath: | 1 cm |
| Temperature: | 37°C |
| Reading: | against blank reagent |
| Reaction: | End Point |

| | blank | sample | calibrator |
|-------------|---------|---------|------------|
| pipette: | | | |
| Reagent (A) | 2500 µl | 2500 µl | 2500 µl |
| water | 50 µl | | |
| sample | | 50 µl | |
| calibrator | | | 50 µl |

Mix, incubate for 5 minutes at 37°C or 15 minutes at room temperature (15-25°C).

Read against blank the absorbance of the sample (Ax) and the calibrator (Ac).

The color is stable at least 15 minutes.

RESULTS CALCULATION

Urine:

Total Proteins (mg/24h) = Ax / Ac x Calibrator conc. x Urine Vol (ml) /100

CSF:

Total Proteins (mg/dl) = Ax / Ac x Calibrator conc.

EXPECTED VALUES

| | |
|---------------|------------------------|
| Urine: | 28 – 150 mg/24h |
| Urine random: | < 10 mg/dl |
| CSF: | 14 – 45 mg/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.

PERFORMANCE

Linearity: the method is linear up to 200 mg/dl. For higher values, dilute the sample 1:5 and multiply the result by 5.

Precision intra-assay: (urine sample):

| | Level 1 | Level 2 |
|---------------|---------|---------|
| Mean (mg/24h) | 21.5 | 188.8 |
| DS | 0.175 | 1.78 |
| CV % | 0.81 | 0.94 |

Precision inter-assay: (urine sample):

| | Level 1 | Level 2 |
|---------------|---------|---------|
| Mean (mg/24h) | 25.8 | 169.5 |
| DS | 0.33 | 2.95 |
| CV % | 1.28 | 1.74 |

Interferences: Glucose does not interfere up to 500 mg/dl; creatinine does not interfere up to 25 mg/dl; urea up to 200 mg/dl does not interfere; sodium chloride up to 350 mEq/l does not interfere.

Correlation against a reference method: $Y = 1.0205x - 0.0488$ $r = 0.997$.

REFERENCES

- 1 Watanabe N., Kamel S., Ohkubo A., Yamakna M., Clin. Chem. 32: 1551-1554, (1986).
- 2 Tietz, NW, Textbook of Clinical Chemistry, WB Saunders, Phil. 608 (1986).
- 3 Vassault A. et al., Ann. Biol. Clin., 44,686 (1986).