Swemed DIAGNOSTICS

MICRO - TOTAL PROTEIN KIT

PRINCIPLE:

The pvrogallol red is combined with molybdenum to form a red complex.

REAGENTS:

1. Micro -Total Protein Reagent : Ready – To – Use
2. Micro -Total Protein Standard : Ready – To – Use

Avoid Contamination of Ready - To - Use Reagent. Always use fresh pipette tips. Keep always the caps tightly closed.

SPECIMEN COLLECTION AND STORAGE:

1. Urine taken as 24 hour collection or at random may be used as sample.
2. Cerebrospinal fluid (CSF) may also be used as a sample of choice. Avoid contamination of CSF by blood components. Blood components present in the sample may lead to falsely elevated values.
3. Copper and Iron ions cause interference. Special care should be taken to avoid contamination of the apparatuses.
4. Be sure to filter or centrifuge turbid samples before performing measurements.

PROCEDURE:

REACTION SLOPE	: Increasing
WAVE LENGTH	: 630 nm
TEMPERATURE	: 37^0 C
INCUBATION	: 10 mins
CUVETTE	: 10 mm path length
STANDARD	:100 mg/dl (refer the vial label)

Addition sequence	Blank	Standard	Sample
Reagent	1000 ul	1000 ul	1000 ul
Standard	-	20 ul	-
Sample	-	-	20 ul

Mix well and incubate for 10 min. at 37^0 C. Measure the absorbance of Sample (AS) and Standard (A Std) against Blank (AB) at 600 – 630 nm, immediately.

CALCULATION:

$$\text{Micro-Total Protein (mg/dL)} = \frac{\text{AS - AB}}{\text{Astd - AB}} \times \text{Concentration of Standard}$$

NOTE:

1. When Micro total protein value exceeds 300 mg/dL. dilute sample 1+1 with saline or distilled water, repeat the assay and multiply the result by 2
2. The Micro total protein reagent contains components which are unstable in light. Always protect it from light.
3. Wash the cuvettes and test tubes used for the test thoroughly before use. Even small amounts of Protein present in the cuvette walls produce erroneously high results. Hence, wash with alkaline solution containing hypochlorite.

EXPECTED VALUES **URINE :** 20 – 120 mg/day
CSF : 8 – 50 mg/dl

LINEARITY : 200 mg/dl

REFERENCES:

1. Fujita. Y. Mon. 1. and Kitano. S., Bunseki Kagaku. 32 379 (2983)
2. Bradford, M.M.: Analyt. Biochem. 72, (1976) 248 – 254.