

## ORDER INFORMATION

CODE : DL3801 - 25 x 1 ML

DL3802 - 50 x 1 ML

# DELTA CSF / URINE PROTEIN (Pyragallol red )

### SAFETY PRECAUTIONS AND WARNINGS :

This reagent is for *In vitro* diagnostic use only.

### INTENDED USE :

This reagent kit is intended for "*in vitro*" quantitative determination of CSF PROTEIN concentration in serum & Urine.

### PRINCIPLE :

The protein test for Urine and CSF is a dye binding colorimetric method utilizing pyrogallol red-molybdate complex, and modified to equalize the reactivities of albumin and  $\gamma$ -globulin, and provide good precision and linearity. The pyrogallol red dye combines with maximum absorbance at 467 nm. When this complex is combined with protein in acidic conditions, a blue-purple color develops with an increase in absorption to 600 nm.

### REAGENT COMPOSITION :

Reagent 1: Pyragallol red Reagent

CSF Protein Standard : 100 mg/dl

### MATERIALS REQUIRED BUT NOT PROVIDED :

- Clean & Dry Glassware.
- Micropipettes & Tips.
- Colorimeter or Bio-Chemistry Analyzer.

### SAMPLES :

Urine samples collected randomly or 24 hr specimens may be used. CSF should be free of hemolysis.

Centrifuge any specimen containing red blood cells or particulate matter. CSF may be stored at 2-8°C for several days until assay.

### STABILITY OF REAGENT :

When Stored tightly closed at 2° C to 8° C temperature protected from light and contaminations prevented during their use; reagents are stable up to the expiry date stated on the label.

### WORKING REAGENT :

The Reagent is ready for use.

### GENERAL SYSTEM PARAMETERS :

Reaction type	End Point
Wave length	600 nm
Light Path	1 Cm
Reaction Temperature	37° C
Blank / Zero Setting	Reagent
Reagent Volume	1ml
Sample Volume	20 $\mu$ l
Incubation Time	10 Minutes
Standard Concentration	100 mg/dl
Low Normal	8 mg/dl
High Normal	43 mg/dl
Linearity	200 mg/dl

### ASSAY PROCEDURE :

	Blank	Standard	Sample
Reagent	1ml	1ml	1ml
Standard		20 $\mu$ l	
Sample			20 $\mu$ l

Mix and read the optical density (A) after a 10 - minute incubation at 37° C temperature.

### CALCULATION :

$$\text{CSF Protein Conc. (Mg/dl)} = \frac{\text{OD of Sample}}{\text{OD of Standard}} \times \text{Conc. of Standard}$$

### LINEARITY :

Reagent is Linear up to 200 mg/dl.

Dilute the sample appropriately and re-assay if CSF Protein concentration exceeds 200 mg/dl. Multiply result with dilution factor.

### REFERENCE NORMAL VALUE :

CSF (Lumbar)	8 - 43 mg/dl
Urine	28 - 141 mg/dl
Random Urine	1 - 14 mg/dl

### QUALITY CONTROL :

For accuracy it is necessary to run known controls with every assay.

### LIMITATION & PRECAUTIONS :

1. Storage conditions as mentioned on the kit to be adhered.
2. Do not freeze or expose the reagents to higher temperature as it may affect the performance of the kit.
3. Before the assay bring all the reagents to room temperature.
4. Avoid contamination of the reagent during assay process.
5. Use clean glassware free from dust or debris.

### BIBLIOGRAPHY :

Teitz N.W., Textbook of Clinical Chemistry. W.B. Saunders Co. (1986) pp 602-613. Dilena B.A., Peneberthy L.A, Fraser C.G., Clin Chem. (1983) 29:356-360



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