



CATACHEM

URINE CSF-MICROPROTEIN

PRODUCT / SERVICE INFORMATION

Catachem, Inc. Introduces the Urine CSF (Microprotein) In-Vitro Di-agnostic (IVD) Chemistry Reagent Kit.

Catachem introduces the VetSpec™ Urine CSF Protein (Microprotein) In-Vitro Diagnostic Chemistry reagent test kit. Catachem is pleased to announce the introduction of our new reagent system with calibrator and controls.

Several methods have been described for the quantitative determination of Total Protein in urine and cerebrospinal fluid (CSF). Procedures utilizing dye-binding suffer from interferences making the protein assay inaccurate. Other procedures are time consuming, tedious and unsuitable for automated analysis. Catachem Protein procedure for urine and CSF is based on the work of Wata I., Nishikaze O., subsequently modified by Richard W. Luxton et al. In this procedure benzathonium chloride reacts with protein to produce a homogeneous and stable turbidity. The procedure shows the same reactivity either with albumin or g-globulin. Interference from short peptides is not observed and interference from magnesium is prevented by the presence of EDTA in the Working Reagent.

Interfering Substances

The following substances have no significant effect on the accuracy of this Urine CSF Protein procedure:

Ascorbic acid	Cefazolin Sodium	Magnesium
Calcium	Glucose	Phosphorus
Creatinine	Gentamicin Sulfate	Sodium Citrate
Chlorpromazine	L-Dopa	Uric Acid

Method Performance Characteristics

Sensitivity: Using a pathlength of 1 cm, a Δ-absorbance of 0.0016-0.0024 per mg/dl should be obtained.

Linearity: In this procedure there is no significant nonlinearity over the range of 0-200 mg/dL (0-2000 mg/L)

Precision: Precision data was obtained using three levels of protein based controls and following the NCCLS EP5-T2 procedure. The following results were observed.

Accuracy

Correlation studies were carried out between this automated Urine CSF Protein method (Y) and a reference automated Urine CSF Protein procedure based on the benzathonium chloride reactions (X). Samples were assayed and the results compared by the least square regression. The following statistics were observed:

CSF	Regression
Range	12-200 mg/dL
Mean of Y	81.35 mg/dL
Mean of X	78.24 mg/dL
Linear Equation	$Y = 0.99X - 1.201$
r	1.000
Sy.x	2.02

CSF	Precision	
Mean	SD	CV
Mean	SD	CV
mg/dL	mg/dL	%
12.5	0.00	0.00
25	0.789	3.13
50	1.252	2.44