

Catachem Plasma Free Hemoglobin (PFH) Method

Intended Use

For **IN VITRO** diagnostic use in the quantitative determination of **Plasma Free Hemoglobin** in serum using manual or automated applications

Method Principle

The Catachem colorimetric procedure for the determination of Hemoglobin in plasma is based upon the Peroxidase activity of Hemoglobin. In this procedure, Hemoglobin activates the oxidation of 3,3',5,5'-tetramethylbenzidine by Hydrogen Peroxide to form a chromogenic product with maximum absorption at 600 nm. The increase of absorbance is directly proportional to the concentration of Hemoglobin in the plasma sample. This procedure is simple and accurate and it is based on the work of Lijana, RC, and Williams, MC, and Standefer, J.C. and Vanderjagt, D.

Reagent Storage And Stability

Catachem Plasma Free Hemoglobin reagents are stored at 2-8°C. When stored as directed, the reagents are stable until expiration date stated on the label.

Working Reagent Preparation

Catachem Plasma Free Hemoglobin reagents are packaged in ready-to-use form. No preparation is required. Upon opening, the Working Reagents are stable for at least 30 days stored at 2-8°C and capped while not in use.

Method Performance Characteristics

Limits of Quantitation and Detection-Serum Samples: LoD 0.0091 OD, 0.025 mg/dL. LoQ 0.5 mg/dL, 10% CV.

Sensitivity: The sensitivity of this method is 0.010-0.012 absorbance units per mg/dL.

Linear Range: In this method there is no significant nonlinearity over the range of 0-100 mg/dL.

Precision: Within-run and day-to-day precision is summarized as follows.

PFH	Within-Run Precision		Total Precision	
	SD	CV	SD	CV
mg/dL	mg/dL	%	mg/dL	%
3.9	0.152	3.975	0.173	4.919
26.4	0.901	3.417	1.162	4.509
54.4	1.529	2.813	1.868	3.708