



CATACHEM

PLASMA FREE HEMOGLOBIN-PFH

PRODUCT / SERVICE INFORMATION

Catachem, Inc. Introduces the Plasma Free Hemoglobin (PFH) In-Vitro Diagnostic (IVD) Chemistry Reagent Kit.

Bridgeport, Connecticut, USA (December 8, 2003).... Catachem, Inc. (Catachem, Private) today announced the development of a new Plasma Free Hemoglobin (Haptoglobin Assay, Free Hemoglobin, FPHB, Hgb, PFH) in vitro diagnostic (IVD) chemistry reagent kit for human and veterinary clinical laboratories.

Serum haptoglobin is most commonly used to detect intravascular destruction (hemolysis) of red blood cells, evaluate hemolytic anemia, and intravascular hemolysis. Plasma hemoglobin is increased with intravascular hemolysis, ABO incompatible transfusion, traumatic hemolysis, falciparum malaria, burns, and march hemoglobinuria. Increase may occur in some cases of extravascular hemolysis, delayed transfusion reaction, slight increase in sickle cell anemia, and thalassemia. Haptoglobin is a protein that is secreted into the blood by the liver that binds free hemoglobin. The concentration of "free" hemoglobin (that is, outside red blood cells) in plasma (the fluid portion of blood) is ordinarily very low. However, free hemoglobin is released when red blood cells hemolyze for any reason. After haptoglobin binds hemoglobin, it is taken up by the liver. The liver recycles the iron, heme, and amino acids contained in the hemoglobin protein. This process destroys haptoglobin as well as hemoglobin. In the presence of active hemolysis, the rate of haptoglobin destruction will outpace the rate at which new haptoglobin is created. Consequently, the concentration of haptoglobin in the blood will decrease. Greater-than-normal levels may indicate: acute rheumatic disease, biliary obstruction, peptic ulcer, ulcerative colitis or other inflammatory conditions and lower than normal levels may indicate: chronic liver disease, erythroblastosis fetalis, hematoma, hemolytic anemias, hemolytic anemia due to G6PD deficiency, idiopathic autoimmune hemolytic anemia, immune hemolytic anemia, drug-induced immune hemolytic anemia, primary liver disease or transfusion reaction.

Plasma Free Hemoglobin (PFH), Haptoglobin Assay (Hgb) or Free Hemoglobin (FPHB) is determined using the catalytic action of hemoglobin on the oxidation of TMB by hydrogen peroxide and measured by spectrophotometry. 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. PFH is a two reagent chemistry available in one size. R1a and R1b are packaged in glass bottles. R2 is packaged ready-to-use in glass bottles. Calibrator and controls are available separately. PFH Reagents: PFH R1a C454-01, PFH R1b C454-02, PFH R2 C454-03.

We are excited about the development of this new assay. PFH provides human and veterinary laboratories better services for their transplant patients. The development of new assays in response to customer requests is an important part of the services we provide for our customers".