

Haptoglobin

Analyte: Haptoglobin

Specimen Type: Serum, EDTA Plasma, Heparin Plasma, Citrate Plasma

Optimum Volume: 0.5 mL

2-8°C

-20°C

-70°C

1 month

5 months

8 years

Reporting units: mg/dL

Method: Immunoturbidimetric

Biological or Clinical Significance:

Haptoglobin is a transport and acute-phase protein that is synthesized in hepatocytes. It is a glycoprotein which consists of two light α -chains and two heavy β -chains. The genetic polymorphism of the α -chains leads to three phenotypes Hp 1-1, Hp 2-1 and Hp 2-2 differing in molecular weight.

Haptoglobin binds hemoglobin producing a strong haptoglobin-hemoglobin complex (Hp-Hb). During pathologically elevated hemolysis, an increase in the level of these complexes occurs.

As a strong positive acute-phase reactant, a hemolysis-mediated reduction in haptoglobin can be compensated for, to a certain extent, by an acute increase in haptoglobin synthesis and secretion. The clinical indications for measurement of haptoglobin include the assessment of the severity and stage of intracascular hemolysis, evaluation of acute inflammatory processes and phenotype differentiation. The latter may be important in assessing cardiovascular disease risk because the Hp 2-2 phenotype is associated with increased lipid peroxidation and the development of atherosclerosis

Principle of Test Method:

The haptoglobin assay is an automated immunoagglutination method.