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# Haptoglobin Human

**Description:**Haptoglobin Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing (aa. 145-405) fusion protein with His tag and having a total Mw of 33 kDa (4 kDa His-tag).

**Synonyms:**Haptoglobin, HP, BP, HPA1S, MGC111141, HP2-ALPHA-2.

**Source:**Escherichia Coli.

**Physical Appearance:**Sterile Filtered White lyophilized (freeze-dried) powder.

**Purity:**Greater than 90.0% as determined by SDS-PAGE and HPLC.

**Formulation:**
Each mg was lyophilized with 1xPBS, 0.1% SDS and 1mM DTT.

**Stability:**
Lyophilized Haptoglobin althoμgh stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Haptoglobin should be stored at 4°C between 2-7 days and for future use below -18°C.For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.

**Usage:**
NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drμgs, agricultural or pesticidal products, food additives or household chemicals.

**Applications:**
1. Positive control for Western blot 2. Antibody production 3. Protein assay.

**Solubility:**
It is recommended to reconstitute the lyophilized Haptoglobin in sterile 18M-cm H2O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

**Introduction:**
Haptoglobin is a glycoprotein which is synthesized in the liver and circulates in the blood. Haptoglobin is produced typically by hepatocytes but also by other tissues: e.g. skin, lung, and kidney. It is a positive acute phase protein that binds free hemoglobin and removes it from the circulation to prevent kidney injury, and iron loss following hemolysis. The haptoglobin-hemoglobin complex is subsequently removed by the reticuloendothelial system (generally the spleen). As the reticuloendothelial system removes the haptoglobin-hemoglobin complex from the body, haptoglobin levels are reduced in hemolytic anaemias. In the course of binding hemoglobin, haptoglobin sequesters the iron inside hemoglobin, preventing iron-utilizing bacteria from benefitting from hemolysis. Haptoglobin consists of two A- and two B-chains, connected by disulfide bonds. Three major haptoglobin phenotypes are known to exist (Hp 1-1, Hp 2-1, and Hp 2-2). Hp 1-1 is biologically the most effective in binding free hemoglobin and suppressing inflammatory responses associated with free hemoglobin. Hp 2-2 is biologically the least active, and Hp 2-1 is moderately active. Haptoglobins molecular mass ranges from 8-200 kDa.Reduced levels can be seen in haemolysis and impaired liver function. High levels are a marker for acute or chronic inflammation. Ahaptoglobinemia or hypohaptoglobinemia are caused by mutations in the

haptoglobin gene and/or its regulatory regions. Haptoglobin is also linked to diabetic nephropathy, the incidence of coronary artery disease in type 1 diabetes, Crohn's disease, inflammatory disease behavior, primary sclerosing cholangitis, susceptibility to idiopathic Parkinson's disease, and a reduced incidence of Plasmodium falciparum malaria.

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**Catalog #:**PRPS-574

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