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Rabbit Anti-Haptoglobulin beta antibody

SL9888R

Product Name:	Haptoglobulin beta
Chinese Name:	结合球蛋白β抗体
Alias:	Binding peptide; BP antibody Haptoglobin alpha(1S) beta; Haptoglobin alpha(2FS) beta; Haptoglobin; Haptoglobin beta chain; Haptoglobin beta polypeptide; Haptoglobin, alpha polypeptide; HP antibody HP2ALPHA2; HPA1S; HPT_HUMAN; MGC111141; Zonulin.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Cow,Horse,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:50-200（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	27/43kDa
Cellular localization:	Secretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Haptoglobulin beta:311-406/406
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Haptoglobin (Hp) is a blood plasma protein that functions to bind free Hemoglobin that has been released from erythrocytes, thereby inhibiting its oxidative activity. During this process, Haptoglobin sequesters the iron within Hemoglobin, preventing iron-

utilizing bacteria from benefitting from hemolysis. This function suggests that Haptoglobin concentrations may increase in response to inflammation. The resulting Haptoglobin-Hemoglobin complex is then removed by the reticulo-endothelial system. Due to cleavage of a common precursor protein during protein synthesis, Haptoglobin consists of two å and two ∫ chains, connected by disulfide bridges. In human, Haptoglobin exists in two allelic forms designated Haptoglogin 1 (Hp1) and Haptoglobin 2 (Hp2), where Hp2 is the result of a partial Hp1 gene duplication. There are three known phenotypes of human Haptoglobin: Hp1-1, Hp2-1 and Hp2-2, which may be associated with diabetes and cardiovascular disease pathology and a susceptibility to Parkinson's and Crohn's disease. Haptoglobin levels are useful in diagnosing hemolytic anemia, the abnormal breakdown of red blood cells. Haptoglobin is expressed in mammalian hepatocytes as well as other tissues such as skin, lung and kidney.

Function:
As a result of hemolysis, hemoglobin is found to accumulate in the kidney and is secreted in the urine. Haptoglobin captures, and combines with free plasma hemoglobin to allow hepatic recycling of heme iron and to prevent kidney damage. Haptoglobin also acts as an Antimicrobial; Antioxidant, has antibacterial activity and plays a role in modulating many aspects of the acute phase response. Hemoglobin/haptoglobin complexes are rapidely cleared by the macrophage CD163 scavenger receptor expressed on the surface of liver Kupfer cells through an endocytic lysosomal degradation pathway.
Uncleaved haptoglogin, also known as zonulin, plays a role in intestinal permeability, allowing intercellular tight junction disassembly, and controlling the equilibrium between tolerance and immunity to non-self antigens.

Subunit:
Tetramer of two alpha and two beta chains; disufide-linked. The Hemoglobin/haptoglobin complex is composed of a haptoglobin dimer bound to two hemoglobin alpha-beta dimers. Interacts with CD163.

Subcellular Location:
Secreted.

Tissue Specificity:
Haptoglobin combines with free plasma hemoglobin, preventing loss of iron through the kidneys and protecting the kidneys from damage by hemoglobin, while making the hemoglobin accessible to degradative enzymes.

DISEASE:
Defects in HP are the cause of anhaptoglobinemia (AHP) [MIM:614081]. AHP is a condition characterized by the absence of the serum glycoprotein haptoglobin. Serum levels of haptoglobin vary among normal persons: levels are low in the neonatal period and in the elderly, differ by population, and can be influenced by environmental factors, such as infection. Secondary hypohaptoglobinemia can occur as a consequence of

	hemolysis, during which haptoglobin binds to free hemoglobin. **Similarity:** Belongs to the peptidase S1 family. Contains 1 peptidase S1 domain. Contains 2 Sushi (CCP/SCR) domains. **SWISS:** P00738 **Gene ID:** 3240 **Database links:** Entrez Gene: 3240Human Omim: 140100Human SwissProt: P00738Human Unigene: 513711Human Unigene: 708058Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.