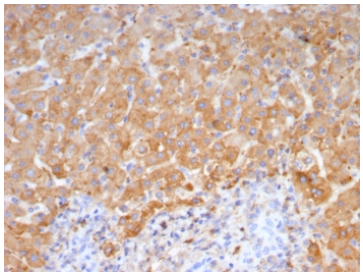
Haptoglobin Antibody / HP [clone HP/4815] (V4444)

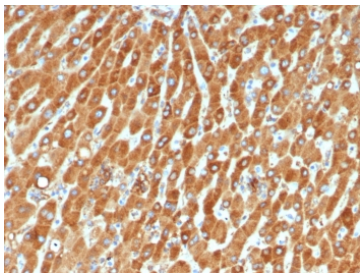
Catalog No.	Formulation	Size
V4444-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4444-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4444SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

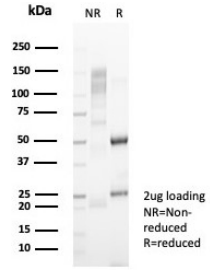
Availability	1-3 business days
Species Reactivity	Human, Rat, Hamster
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	HP/4815
Purity	Protein A/G affinity
UniProt	P00738
Localization	Secreted, Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT (Human) Western blot: 2-4ug/ml (Human/Rat/Hamster)
Limitations	This Haptoglobin antibody is available for research use only.



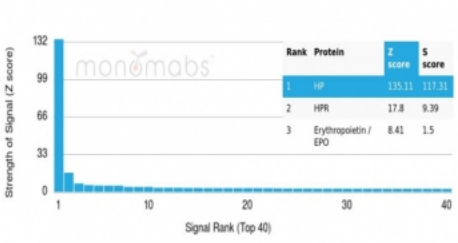
IHC staining of FFPE human hepatocellular carcinoma tissue with Haptoglobin antibody (clone HP/4815). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



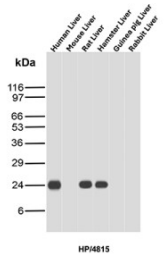
IHC staining of FFPE human liver tissue with Haptoglobin antibody (clone HP/4815). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



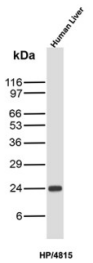
SDS-PAGE analysis of purified, BSA-free Haptoglobin antibody (clone HP/4815) as confirmation of integrity and purity.



Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins using Haptoglobin antibody (clone HP/4815) Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a mAb to its intended target. A mAb is considered to specific to its intended target, if the mAb has an S-score of at least 2.5. For example, if a mAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that mAb to protein X is equal to 29.



Haptoglobin Antibody HP/4815 Detection Across Mammalian Liver Tissues WB. Western blot analysis of human, mouse, rat, hamster, guinea pig and rabbit liver tissue lysates using Haptoglobin Antibody clone HP/4815. A prominent band is detected at approximately 24 kDa in human, rat and hamster liver, while little to no corresponding signal is evident in mouse, guinea pig or rabbit liver under the tested conditions. Haptoglobin is synthesized as an approximately 45 kDa precursor that undergoes proteolytic processing into alpha and beta chains; the observed ~24 kDa band is consistent with the processed haptoglobin beta chain, whose apparent molecular weight can be influenced by glycosylation.



Haptoglobin Antibody HP/4815 Detection in Human Liver WB. Western blot analysis of human liver tissue lysate using Haptoglobin Antibody clone HP/4815. A strong, discrete band is detected at approximately 24 kDa. Haptoglobin is synthesized as an approximately 45 kDa precursor that undergoes proteolytic processing into alpha and beta chains; the observed ~24 kDa band is consistent with the processed haptoglobin beta chain, whose apparent molecular weight can be influenced by glycosylation.

Description

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 a and two b chains, connected by disulfide bridges. In human, Haptoglobin exists in two allelic forms designated Haptoglobin 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.

For an additional Protein Microarray Validated monoclonal antibody to haptoglobin, see our Haptoglobin Antibody HP/3835 / Haptoglobin Protein Antibody page.

Application Notes

Optimal dilution of the Haptoglobin antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 100-250) from the human protein was used as the immunogen for the Haptoglobin antibody.

Storage

Aliquot the Haptoglobin antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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