

## Haptoglobin (HP) Antibody

Mouse Monoclonal Antibody [Clone HP/3839]

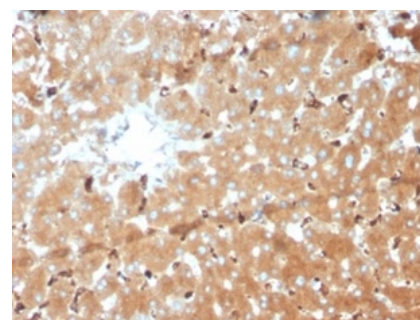
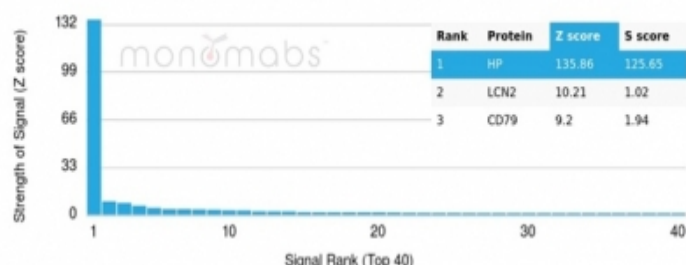
Catalog No	Format	Size
3240-MSM9-P0	Purified Ab with BSA and Azide	200ug/ml
3240-MSM9-P1	Purified Ab with BSA and Azide	200ug/ml
3240-MSM9-P1ABX	Purified Ab WITHOUT BSA and Azide	1.0mg/ml

Applications	Tested Dillution
Immunohistochemistry (IHC)	1-2ug/ml

Product Details	
Clone	HP/3839
Gene Name	HP
Immunogen	Recombinant fragment (around aa100-250) of human HP protein (exact sequence is proprietary)
Host	Mouse
Clonality	Monoclonal
Isotype / Light Chain	IgG1 / Kappa
Mol. Weight of Antigen	15-18 kDa ( chain); 45kDa ( chain)
Cellular Localization	Secreted
Species Reactivity	Human
Positive Control	Human liver.

*\*Optimal dilution for a specific application should be determined.*

### Product Images for Haptoglobin (HP) Antibody



Formalin-fixed, paraffin-embedded human liver stained with Haptoglobin Mouse Monoclonal Antibody (HP/3839) at 2ug/ml.

Analysis of Protein Array containing more than 19,000 full-length human proteins using Haptoglobin-Monospecific Mouse Monoclonal Antibody (HP/3839). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ 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™ 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 be 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.

### Specificity & Comments

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  $\alpha$  and two  $\beta$  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.

### Research Areas

Cardiovascular, Immunology

### Known Applications & Suggested Dilutions

Immunohistochemistry (Formalin-fixed) (1-2 $\mu$ g/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95  $^{\circ}$ C followed by cooling at RT for 20 minutes),Optimal dilution for a specific application should be determined.

### Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis.

There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

### Supplied As

200 $\mu$ g/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

### Storage and Stability

Antibody with azide - store at 2 to 8  $^{\circ}$ C. Antibody without azide - store at -20 to -80  $^{\circ}$ C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.