Product SpecifiHorseion Sheet

Horse Haptoglobin Protein and Antibodies

□ Horse # HGLB17-C	Horse Haptoglobin protein control for Western blot	**SIZE**:100 ul
□ Horse # HGLB17-N-25	Purified Horse Haptoglobin protein	**SIZE**:25 ug

Haptoglobin (also known as Haptoglobin, alpha polypeptide antibody, Haptoglobin, beta polypeptide antibody, HP antibody, Hp2 alpha antibody, HP2 ALPHA2 antibody,HPA1S antibody, HPT antibody, MGC111141 antibody as Hp) is a protein that in humans is encoded by the HP gene. In blood plasma, haptoglobin binds free hemoglobin (Hb) released from erythrocytes with high affinity and thereby inhibits its oxidative activity. The haptoglobin-hemoglobin complex will then be removed by the reticulo-endothelial system (mostly the spleen).

This HP gene encodes a precursor that is processed to yield both alpha and beta chains, which subsequently combine as a tetramer to produce haptoglobin. Haptoglobin functions to bind free plasma hemoglobin, which allows degradative enzymes to gain access to the hemoglobin while at the same time preventing loss of iron through the kidneys and protecting the kidneys from damage by hemoglobin. Haptoglobin is produced mostly by hepatocytes but also by other tissues: e.g., skin, lung, and kidney. In addition, the haptoglobin gene is expressed in murine and human adipose tissue.

Haptoglobin, in its simplest form, consists of two α- and two β-chains, connected by disulfide bridges. Hp exists in two allelic forms in the human population, so-called Hp1 and Hp2, the latter one having arisen due to the partial duplication of Hp1 gene. Three phenotypes of Hp, therefore, are found in humans: Hp1-1, Hp2-1, and Hp2-2. Hp of different phenotypes have been shown to bind hemoglobin with different affinities, with Hp2-2 being the weakest binder. The amino acid sequence of Hp1-1 consists of 406 aa, it has molecular weight of about 45 kDa.

Source of Antigen, Antibodies

#HGLB17-N, Purified Horse Haptoglobin

Hp was purified from Horse plasma using proprietary techniques (>95% pure, 40 and 10 kda on SDS_PAGE Kda). It is supplied lyophilized in salt-free form. Reconstitue powder in PBS, pH 7.4 or in other buffers. Store powder at -20oC and make aliquots of the stock solution and store frozen at -20oC. Avoid repeated freeze and thaw.

#HGLB17-C, Horse Haptoglobin control for Western blot

Purified Horse Haptoglobin mixed isotypes (40 and 10 kda on SDS-PAGE) for Western blot +ve control (**Horse # HGLB17-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **HGLB17**-C for good visibility with antibody. Store at –20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **HGLB17**-C solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other application where native protein is required. Do not freeze, thaw, or heat repeatedly

Form & Storage of Antibodies/Peptide Control

Storage

Short-term: unopened, undiluted liquid vials at -20^{O}C and powder at 4^{O}C or -20^{O}C.

Long-term: at –20^{O}C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20^{O}C or below.
Shipping: 4^{O}C for solutions and room temp for powder.

Recommended Usage

ELISA: Dilution 1:1,000 is recommended.
Suitable for Western Blot.

Specificity & Cross-reactivity

Anti-Horse haptoglobin antibody reacts with Horse haptoglobin. Antibody reactivity with other species not studied. Antibodies to human, mouse, Horse, dog, Horse, horse haptoglobin and purified proteins are also available.

General References: van der StHorseen A. et al. (1983) EMBO J., 2, 1003-1007; Yang F. et al. (1983) PNAS USA, 80, 5875-5879; Maeda N. et al. (1984) Nature, 309, 131-135; Kurosky A. et al. (1980) PNAS USA, 77, 3388-3392; Kliffen M. et al. (1995) Lab. Invest., 73, 267-272; Malchy B., and Dixon G.H. (1973) Can. J. Biochem., 51, 249-264; Dobryszycka W. (1997) Eur J Clin Chem Clin Biochem, 35, 647–54; Wassell J. (2000) Clin. Lab., 46, 547–52.; Trayhurn P., and Wood I.S. (2004) Br. J. Nutr., 92, 347–355; Sadrzadeh S.M., and Bozorgmehr J. (2004) Am. J. Clin. Pathol., 121, Suppl: S97–S104; Papp M. et al. (2007) Dig. Dis. Sci., 52, 1279–1284.

Related items:

Mouse, Horse, Dog, Horse, Horse, Horse, Human Haptoglobin proteins, antibodies and ELISA kits

*This product is for In vitro research use only.

HGLB17-C 130116A

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