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Recombinant Human Haptoglobin Protein

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Catalog No.: RP02854

Recombinant

Sequence Information

Species Gene ID Swiss Prot
Human 3240 P00738

Tags C-6His

Synonyms

Haptoglobin; Zonulin; HP

Product Information

Source

Purification

HEK294 cells

Greater than 95% as determined by reducing SDS-PAGE. (QC verified)

Endotoxin

Less than 0.1 ng/ μ g (1 EU/ μ g) as determined by LAL test

Formulation

Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the tube before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid votex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact



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Background

Haptoglobin(HP) is a secreted protein which is a member of the peptidase S1 family of serine proteases. 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.

Basic Information

Description

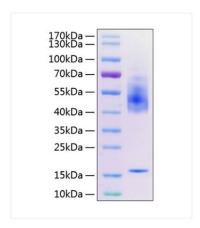
Recombinant Human Haptoglobin Protein is produced by HEK294 cells expression system. The target protein is expressed with sequence (Val19-Gln160(alpha chain)&lle162-Asn406(beta chain)) of human Haptoglobin (Accession $\#NP_005134.1$) fused with a $6\times$ His tag at the C-terminus.

Bio-Activity

Storage

Lyophilized protein should be stored at \leq -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at \leq -20°C for 3 months. Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human Haptoglobin Protein was determined by SDS-PAGE with Coomassie Blue, 16&40-75 KDa, reducing conditions