

## Recombinant Human HP, His-tagged

**Cat. No.** HP-5101H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human HP protein, fused to His-tag at N-terminus, was expressed in E.coli.                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Description</b>      | HP, as known as haptoglobin, is processed to yield both alpha and beta chains, which subsequently combine as a tetramer to produce haptoglobin. 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 reticuloendothelial system (mostly the spleen).     |
| <b>Form</b>             | Liquid. 20mM Tris-HCl buffer (pH8.0) containing 10% glycerol 0.4M Urea                                                                                                                                                                                                                                                                                                                                                |
| <b>Molecular Mass</b>   | 39.0 kDa(352aa)                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>AA Sequence</b>      | MGSSHHHHHH SSGLVPRGSH MGSVDSGNDV TDIADDGCPK PPEIAHGYVE<br>HSVRYQCKNY YKLRTGDGV YTLNNEKQWI NKA VGDKLPE CEAVCGKPKN<br>PANPVQRILG GHLDAGKSGP WQAKMVSHHN LTTGATLINE QWLLTTAKNL<br>FLNHSENATA KDIAPTLTLY VGKKQLVEIE KVVLPNYSQ VDIGLIKLKQ<br>KVS VNERVMP ICLPSKDYAE VGRVGYVSGW GRNANFKFTD HLKYVMLPVA<br>DQDQCIRHYE GSTVPEKKTP KSPVGVQPIL NEHTFCAGMS KYQEDTCYGD<br>AGSAFAVHDL EEDTWYATGI LSFDKSCAVA EYGVYVKVTS IQDWVQKTIA EN |

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|                      |                                                                                                                                                                               |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>        | >80% by SDS - PAGE                                                                                                                                                            |
| <b>Applications</b>  | SDS-PAGE                                                                                                                                                                      |
| <b>Storage</b>       | Can be stored at +4centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20centigrade or -70centigrade. Avoid repeated freezing and thawing cycles. |
| <b>Concentration</b> | 0.5mg/ml (determined by Bradford assay)                                                                                                                                       |

## GENE INFORMATION

|                            |                                                                                                                                                                                                     |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | HP haptoglobin [ Homo sapiens ]                                                                                                                                                                     |
| <b>Official Symbol</b>     | HP                                                                                                                                                                                                  |
| <b>Synonyms</b>            | HP; haptoglobin; zonulin; binding peptide; haptoglobin alpha(1S)-beta; haptoglobin alpha(2FS)-beta; haptoglobin, beta polypeptide; haptoglobin, alpha polypeptide; BP; HPA1S; HP2ALPHA2; MGC111141; |
| <b>Gene ID</b>             | 3240                                                                                                                                                                                                |
| <b>mRNA Refseq</b>         | NM_001126102                                                                                                                                                                                        |
| <b>Protein Refseq</b>      | NP_001119574                                                                                                                                                                                        |
| <b>MIM</b>                 | 140100                                                                                                                                                                                              |
| <b>UniProt ID</b>          | P00738                                                                                                                                                                                              |
| <b>Chromosome Location</b> | 16q22.2                                                                                                                                                                                             |

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|-----------------|-----------------------------------------------------------------------------|
| <b>Pathway</b>  | amb2 Integrin signaling, organism-specific biosystem;                       |
| <b>Function</b> | catalytic activity; hemoglobin binding; serine-type endopeptidase activity; |

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