# Recombinant HEMO protein (His tag)

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| **Catalog Number** | 542003 |
| **Synonyms** | Beta-1B-glycoprotein |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | P02790 |
| **Molecular Weight** | Predictes a molecular mass of 49.07 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band. |

## Product Information

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| **Sequence Region** | 43-462 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >89%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 43-462 aa (P02790) were fused with 6His tag. |

## Storage & Handling

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| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Human Hemopexin (Beta-1B-glycoprotein) Fragment (residues 43-462) is a 420-amino acid soluble protein designed for robust structural and biochemical studies. This fragment, derived from the HPX gene, retains key functional characteristics, including heme-binding and transport capabilities, making it an ideal tool for investigating iron metabolism and heme detoxification pathways.<br>Hemopexin, encoded by the HPX gene in humans, is a secreted plasma glycoprotein that plays a critical role in heme homeostasis. Its primary function is to bind free heme with high affinity and transport it to the liver, where heme is broken down and iron is recovered for reuse. Following heme delivery, hemopexin is released back into circulation, enabling it to participate in multiple rounds of heme clearance. This protein is essential for protecting tissues from heme-induced oxidative stress and managing iron recycling, highlighting its importance in physiological and pathological contexts related to hemolysis and iron metabolism. |