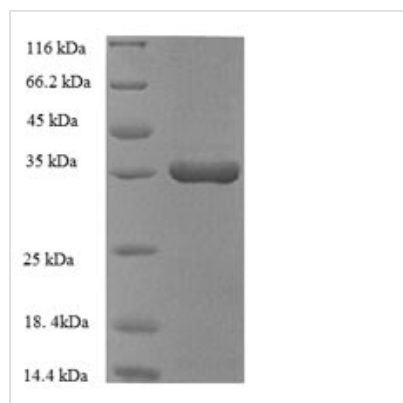




Recombinant Human Heme oxygenase 1 (HMOX1), partial

Product Code	CSB-EP010583HU
Relevance	He oxygenase cleaves the he ring at the alpha methene bridge to form biliverdin. Biliverdin is subsequently converted to bilirubin by biliverdin reductase. Under physiological conditions, the activity of he oxygenase is highest in the spleen, where senescent erythrocytes are sequestered and destroyed. Exhibits cytoprotective effects since excess of free he sensitizes cells to undergo apoptosis.
Abbreviation	Recombinant Human HMOX1 protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P09601
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	RPQPDSMPQDLSEALKEATKEVHTQAENAEFMRNFQKGQVTRDGFKLVMAS LYHIYVALEEEIERNKESPVFAPVYFPEELHRKAALEQDLAFWYGPRWQEVIPY TPAMQRYVKRLHEVGRTEPELLVAHAYTRYLGDLGGQVLKKIAQKALDLPSS GEGLAFFTFPNIASATKFKQLYRSRMNSLEMTPAVRQRVIEEAKTAFLLNIQLFE ELQELLTHDTKDQSPSRAPGLRQRASNKVQDSAPVETPRGKPPLNTRSQAPL LRWVLTLSFLVATVAVGLYAM
Research Area	Cardiovascular
Source	E.coli
Target Names	HMOX1
Expression Region	3-288aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	36.6kDa
Protein Length	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The region for expressing recombinant Human HMOX1 contains amino acids 3-288. The theoretical molecular weight of the HMOX1 protein is 36.6 kDa. This HMOX1 protein is produced using e.coli expression system. The HMOX1 gene fragment has been modified by fusing the N-terminal 6xHis tag, providing convenience in detecting and purifying the recombinant HMOX1 protein during the following stages.

Human heme oxygenase 1 (HMOX1) is a crucial enzyme that plays a central role in heme catabolism. It catalyzes the degradation of heme into biliverdin, carbon monoxide (CO), and ferrous iron. Biliverdin is subsequently converted into bilirubin, an antioxidant with anti-inflammatory properties. HMOX1 is induced by various stimuli, including oxidative stress, inflammation, and environmental factors. Its expression is regulated by the transcription factor NRF2, which binds to the antioxidant response element (ARE) in the HMOX1 promoter. The enzymatic products generated by HMOX1 have protective effects against oxidative stress and inflammation. Research on HMOX1 is extensive, exploring its implications in diverse areas such as cellular stress response, inflammation, immune regulation, and its potential therapeutic applications in conditions associated with oxidative damage.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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