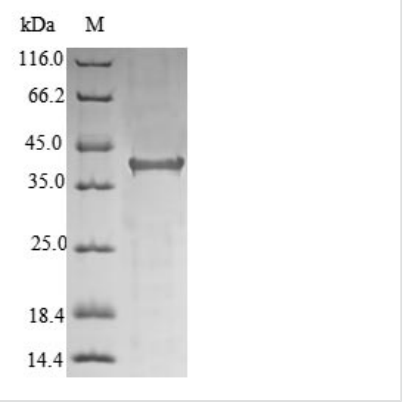
Recombinant Human Hereditary hemochromatosis protein (HFE), partial

Product Code	CSB-EP653744HU
Relevance	Binds to transferrin receptor (TFR) and reduces its affinity for iron-loaded transferrin.
Abbreviation	Recombinant Human HFE 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.	Q30201
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	RLLRSHSLHYLFMGASEQDLGLSLFEALGYVDDQLFVFYDHESRRVEPRTPW VSSRISSQMWLQLSQSLKGWDHMFTVDFWTIMENHNHSKESHTLQVILGCEM QEDNSTEGYWKYGYDGQDHLEFCPDTLDWRAAEPRAWPTKLEWERHKIRAR QNRAYLERDCPAQLQQLLELGRGVLDQQVPPLVKVTHHVTSSVTTLRCRALN YYPQNITMKWLKDKQPMDAKEFEPKDVLPNGDGTYQGWITLAVPPGEEQRYT CQVEHPGLDQPLIVIWEPSPSGTLV
Research Area	Metabolism
Source	E.coli
Target Names	HFE
Protein Names	HLA-H
Expression Region	23-306aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	40.2 kDa
Protein Length	Extracellular Domain
Image	



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

Description

Amino acids 23-306 constitute the expression domain of recombinant Human HFE. The calculated molecular weight for this HFE protein is 40.2 kDa. The HFE protein was expressed in e.coli. Fusion of the N-terminal 10xHis tag and C-terminal Myc tag into the HFE encoding gene fragment was conducted, allowing for easier detection and purification of the HFE protein in subsequent stages.

The human hereditary hemochromatosis protein (HFE) is essential for iron homeostasis regulation. HFE interacts with the transferrin receptor, influencing cellular iron uptake. Mutations in HFE are associated with hereditary hemochromatosis, a disorder characterized by excessive iron absorption. In hematology, HFE research contributes to understanding iron metabolism and hemochromatosis pathogenesis. Additionally, HFE's role in modulating immune responses suggests implications in autoimmune diseases. In genetics, studying HFE variants aids in population genetics and disease risk assessment. Investigating HFE provides insights into iron-related disorders, immune function, and genetic susceptibility, offering potential applications in therapeutic strategies targeting iron dysregulation and genetic screening for hemochromatosis risk.

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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