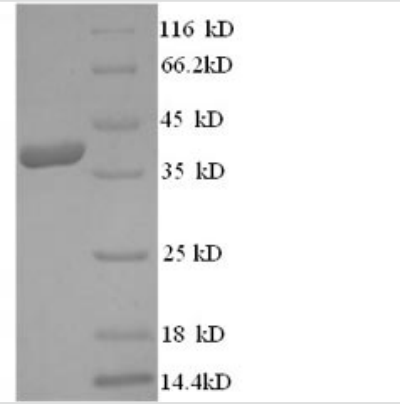
Recombinant Human 3-hydroxy-3-methylglutaryl-coenzyme A reductase (HMGCR), partial

Product Code	CSB-EP010565HU
Relevance	Transmbrane glycoprotein that is the rate-limiting enzyme in cholesterol biosynthesis as well as in the biosynthesis of nonsterol isoprenoids that are essential for normal cell function including ubiquinone and geranylgeranyl proteins.
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.	P04035
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MTRGPVVRLPRACDSAEVKAWLETSEGFAVIKEAFDSTSRFARLQKLHTSIAG RNLYIRFQSRSGDAMGMNMISKGTEKALSKLHEYFPEMQILAVSGNYCTDKKP AAINWIEGRGKSVVCEAVIPAKVVREVLKTTTEAMIEVNINKNLVGSAMAGSIG GYNAHAANIVTAIYIACGQDAAQNVGSSNCITLMEASGPTNEDLYISCTMPSIEI GTVGGGTNLLPQQACLQMLGVQGACKDNPGENARQLARIVCGTVMAGELSL MAALAAGHLVKSHMIHNRSKINLQDLQGACTKKT
Lead Time	3-7 business days
Research Area	Metabolism
Source	E.coli
Gene Names	HMGCR
Expression Region	588-887aa
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	36.0kDa
Protein Description	Partial
Image	



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

Description

The production of this recombinant Human HMGCR protein is just like all recombinant proteins. The process involved transfecting E.coli cells with DNA vector containing the template of recombinant DNA. The E.coli cells containing the template were then cultured so that they could transcribe and translate the HMGCR protein. N-terminal 6xHis tag was used in the process. The purity is 90% determined by SDS-PAGE.

HMGCR is a gene providing instructions for making a protein called 3-hydroxy-3-methylglutaryl-coenzyme A reductase (also known as HMG-CoA reductase), which is the rate-controlling enzyme of the mevalonate pathway, the metabolic pathway that produces cholesterol and other isoprenoids. HMG-CoA reductase catalyzes the NADPH-dependent reduction of HMG-CoA to mevalonic acid, a necessary step in the biosynthesis of cholesterol. Currently, this enzyme is the target of the widely available cholesterol-lowering drugs, such as statins, which help treat dyslipidemia.

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.