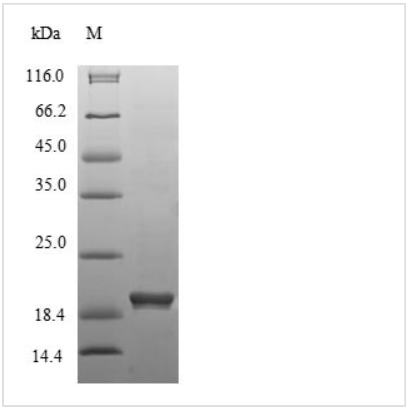
Recombinant Mouse 3-hydroxy-3-methylglutaryl-coenzyme A reductase (Hmgcr), partial

Product Code	CSB-EP010565MO1
Relevance	Transmembrane 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.
Abbreviation	Recombinant Mouse Hmgcr 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.	Q01237
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	GRGKTVVCEAVIPAKVVREVLKTTTEAMVDVNINKNLVGSAMAGSIGGYNAHA ANIVTAIYIACGQDAAQNVGSSNCITLMEASGPTNEDLYISCTMPSIEIGTVGGG TNLLPQQACLQMLGVQGACKDNPGENARQLARIVCGTVMAGELSLMAALAAG H
Research Area	Cardiovascular
Source	E.coli
Target Names	Hmgcr
Expression Region	700-860aa
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	20.4 kDa
Protein Length	Partial
Image	



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

Description

Amino acids 700-860 constitute the expression domain of recombinant Mouse Hmgcr. This Hmgcr protein is expected to have a theoretical molecular weight of 20.4 kDa. This Hmgcr recombinant protein is manufactured in e.coli. The Hmgcr gene fragment has been modified by fusing the N-terminal 6xHis tag, providing convenience in detecting and purifying the recombinant Hmgcr protein during the following stages.

3-hydroxy-3-methylglutaryl-coenzyme A reductase (Hmgcr) in mice is a key enzyme in the mevalonate pathway, responsible for catalyzing the conversion of HMG-CoA to mevalonate. This process is a critical step in cholesterol biosynthesis and regulation. Hmgcr plays a central role in controlling cellular cholesterol levels, as it is subject to feedback regulation by cholesterol levels in the cell. Additionally, the mevalonate pathway is essential for the synthesis of various isoprenoids, including ubiquinone and dolichol, which have diverse cellular functions. Given its pivotal role in cholesterol homeostasis and broader cellular processes, Hmgcr is a target for pharmacological interventions, particularly in the development of statin drugs used to lower cholesterol levels and prevent cardiovascular diseases.

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

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.