Recombinant HMCS1 protein (His tag)

Catalog Number	537945
Synonyms	HMG-CoA synthase; 3-hydroxy-3-methylglutaryl coenzyme A synthase
Species	Human
Expression System	E. coli
Accession	Q01581
Molecular Weight	Predictes a molecular mass of 54.00 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 55 kDa band.

Product Information

Sequence Region	1-472
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-472 aa (Q01581) were fused with 6His tag.

Storage & Handling

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. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant human Hydroxymethylglutaryl-CoA synthase, cytoplasmic (HMG-CoA synthase), corresponding to amino acids 1-472, is a high-purity protein fragment designed for structural and biochemical studies. This stable and soluble unit retains functional relevance, enabling research into cholesterol biosynthesis pathways. HMG-CoA synthase (HMGCS1) catalyzes the condensation of acetyl-CoA with acetoacetyl-CoA to form HMG-CoA, a critical step in the mevalonate pathway. This reaction is essential for cholesterol synthesis, as HMG-CoA is subsequently converted to mevalonate by HMG-CoA reductase. The full-length protein localizes to the cytoplasm, underscoring its role in cytosolic metabolic processes. This recombinant fragment supports investigations into enzyme mechanisms and metabolic regulation.