

Recombinant Human 3-Hydroxymethyl-3-Methylglutaryl-CoA Lyase, His-tagged

Cat. No. HMGCL-1562H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human HMGCL protein, fused to His-tag at N-terminus, was expressed in E.coli.
Species	Human
Source	E.coli
Description	HMGCL, also known as hydroxymethylglutaryl-CoA lyase, is a mitochondrial matrix protein that belongs to the HMG-CoA lyase family. It exists as a homodimer and participates in leucine catabolism and ketogenesis, the hepatic synthesis of ketone bodies that, during fasting, provide a major source of energy for heart, brain and kidney. More specifically, it catalyzes the final step of these processes, the cleavage of 3-hydroxy-3-methylglutaryl-CoA to acetoacetic acid and acetyl-CoA.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 0.4M Urea.
Molecular Weight	34.2 kDa (323aa)
Purity	>85% by SDS-PAGE
Concentration	1.0 mg/ml (determined by Bradford assay)
Sequences of amino acids	MGSSHHHHHH SSGLVPRGSH MGSHTLPKR VKIVEVGPRD GLQNEKNIVS TPVKIKLIDM LSEAGLSVIE TTSFVSPKWV PQMGDHTVLKGIQKFPGIN

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YPVLTPNLKG FEAAVAAGAK EVVIFGAASE LFTKKNINCS IEESFQRFDA
 ILKAAQSANI SVRGYVSCAL GCPYEGKISPAKVAEVTKKF YSMGCYEISL
 GDTIGVGTPG IMKDMLSAVM QEVPLAALAV HCHDTYGQAL ANTLMALQMG
 VSVVDSSVAG LGGCPYAQGASGNLATEDLV YMLEGLGIHT GVNQLKLEA
 GNFICQALNR KTSSKVAQAT CKL

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Pathways

Butanoate metabolism; Fatty acid; Formation of Acetoacetic Acid; Ketone body metabolism; Metabolic pathways; Metabolism of lipids and lipoproteins; Peroxisome; Synthesis and Degradation of Ketone Bodies; Synthesis of Ketone Bodies; Valine

GENE INFORMATION

Gene Name

HMGCL 3-hydroxymethyl-3-methylglutaryl-CoA lyase [Homo sapiens]

Official Symbol

HMGCL

Synonyms

HMGCL; 3-hydroxymethyl-3-methylglutaryl-CoA lyase; HL; hydroxymethylglutaryl-CoA lyase, mitochondrial; HMG-CoA lyase; OTTHUMP00000003005; OTTHUMP00000223529; OTTHUMP00000223530; EC 4.1.3.4; hydroxymethylglutaricaciduria; 3-hydroxy-3-methylglutaryl-CoA lyase; 3-hydroxy-3-methylglutarate-CoA lyase; 3-hydroxymethyl-3-methylglutaryl-Coenzyme A lyase

Gene ID

3155

mRNA Refseq

NM_000191

Protein Refseq

NP_000182

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MIM	613898
UniProt ID	P35914
Chromosome Location	1p36.1-p35
Function	carboxylic acid binding; fatty-acyl-CoA binding; hydroxymethylglutaryl-CoA lyase activity; lyase activity; metal ion binding

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