

Recombinant Human GCDH, His-tagged

Cat. No. GCDH-27464TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human GCDH , with N terminal His-tag; 415aa, 45.8kDa inclusive of tag;
Species	Human
Source	E.coli
ProteinLength	394 amino acids
Description	The protein encoded by this gene belongs to the acyl-CoA dehydrogenase family. It catalyzes the oxidative decarboxylation of glutaryl-CoA to crotonyl-CoA and CO(2) in the degradative pathway of L-lysine, L-hydroxylysine, and L-tryptophan metabolism. It uses electron transfer flavoprotein as its electron acceptor. The enzyme exists in the mitochondrial matrix as a homotetramer of 45-kD subunits. Alternatively spliced transcript variants encoding different isoforms have been identified.
Conjugation	HIS
Molecular Weight	45.800kDa inclusive of tags
Tissue specificity	Isoform 1 and isoform 2 are expressed in fibroblasts and liver.
Form	Liquid
Purity	>90% by SDS-PAGE

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Storage buffer	Preservative: None Constituents: 20% Glycerol, 5mM DTT, 200mM Sodium chloride, 20mM Tris HCl, pH 8
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Sequences of amino acids	MGSSHHHHHHSSGLVPRGSHMRPEFDWQDPLVLEEQLTTDEILIRDTFRTYCQERL MPRILLANRNEVFHREIISEMGELGVLGPTIKGYGCAGVSSVAYGLLARELERVDSGY RSAMSVQSSSLVMHPYAYGSEEQRQKYLPLAKGELLGCFGLTEPNSGSDPSSMET RAHYNSSNKSITLNGTKTWITNSPMADLFVWARCEDGCIRGFLLEKGMRGLSAPR IQGKFSLRASATGMIIMDGVEVPEENVLPGASSLGGPFGCLNNARYGIAWGVLGASE FCLHTARQYALDRMQFGVPLARNQLIQKKLADMLTEITLGLHACLQLGRLKDQDKAA PEMVSLKRNCGKALDIARQARDMLGGNGISDEYHVIRHAMNLEAVNTYEGTHDIH ALILGRAITGIQAFTASK
Sequence Similarities	Belongs to the acyl-CoA dehydrogenase family.
GENE INFORMATION	
Gene Name	GCDH glutaryl-CoA dehydrogenase [Homo sapiens]
Official Symbol	GCDH
Synonyms	GCDH; glutaryl-CoA dehydrogenase; glutaryl Coenzyme A dehydrogenase; glutaryl-CoA dehydrogenase, mitochondrial; ACAD5;
Gene ID	2639
mRNA Refseq	NM_000159

Protein Refseq	NP_000150
MIM	608801
Uniprot ID	Q92947
Chromosome Location	19p13.2
Pathway	Fatty Acid Beta Oxidation, organism-specific biosystem; Fatty acid metabolism, organism-specific biosystem; Fatty acid metabolism, conserved biosystem; Lysine catabolism, organism-specific biosystem; Lysine degradation, organism-specific biosystem;
Function	fatty-acyl-CoA binding; flavin adenine dinucleotide binding; glutaryl-CoA dehydrogenase activity;

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