

Recombinant Human BCKDHA

Cat. No. BCKDHA-962H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human BCKDHA protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	46-445 a.a.
Description	BCKDHA (branched-chain-keto acid dehydrogenase E1 component chain), also known as 2-oxoisovalerate dehydrogenase subunit alpha, belongs to the BCKDHA family. The branched-chain alpha-keto acid dehydrogenase complex is an inter mitochondrial enzyme complex that catalyzes the second major step in the catabolism of the branched-chain amino acids leucine, isoleucine, and valine. The BCKD complex consists of three catalytic components: a heterotetrameric (alpha2-beta2) branched-chain alpha-keto acid decarboxylase (E1), a dihydrolipoyl transacylase (E2), and a dihydrolipoamide dehydrogenase (E3).
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 5mM DTT, 30% glycerol, 0.2M NaCl.
Molecular Weight	47.8kDa (421aa) confirmed by MALDI-TOF.
Purity	> 80% by SDS – PAGE.

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Concentration	0.25 mg/ml (determined by Bradford assay).
Sequences Of Amino Acids	MGSSHHHHHH SSGLVPRGSH MSSLDDKPQF PGASAEFIDK LEFIQPNVIS GIPI YRVMDR QGQIINPSED PHLPKKVLK LYKSMTLLNT MDRILYESQR QGRI SFY MTN YGEEGTHVGS AAALDNTDLV FGQYREAGVL MYRDYPLELF MAQ CYGNISD LGK GRQMPVH YGCKERHFVT ISSPLATQIP QAVGAAYAANK RAN AN RVVIC YF G EGAASEG DAHAGFNFAA TLECPHFFC RNNGYAISTP TSEQ YRGDGI AA RG PG YGIM SIRVDGNDVF AVYNATKEAR RRAVAENQPF LIEA MTYRIG HH STS DD S SA YRSVDEVNYW DKQDHPISRL RHYLLSQGW DEE QEKAWRK QS RRK VME A F EQAERKPKPN PNLLFSDVYQ EMPAQLRKQQ ESLA RHLQTY GEHYPLDHFD K.
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	Metabolic pathways; Valine, leucine and isoleucine degradation; Metabolism of amino acids and derivatives
GENE INFORMATION	
Gene Name	BCKDHA branched chain keto acid dehydrogenase E1, alpha polypeptide [Homo sapiens]
Synonyms	branched chain keto acid dehydrogenase E1, alpha polypeptide; MSU; MSUD1; OVD1A; BCKDE1A; FLJ45695; BCKDHA; 2-oxoisovalerate dehydrogenase subunit alpha, mitochondrial; BCKDH E1-alpha ; 2-oxoisovalerate dehydrogenase (lipoamide) ; branched-chain alpha-keto acid dehydrogenase E1 component alpha chain; Branched-chain alpha-keto acid dehydrogenase E1 component alpha chain; branched chain keto acid dehydrogenase E1, alpha polypeptide (maple syrup urine disease); EC 1.2.4.4
Gene ID	593

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mRNA Refseq	NM_000709
Protein Refseq	NP_000700
MIM	608348
UniProt ID	P12694
Chromosome Location	19q13.1-q13.2
Function	3-methyl-2-oxobutanoate dehydrogenase (2-methylpropanoyl-transferring) activity; alpha-ketoacid dehydrogenase activity; carboxy-lyase activity; metal ion binding; protein binding
PDBrendering based on 1dtw.	