

Recombinant Human Isovaleryl Coenzyme A dehydrogenase, His-tagged

Cat. No. IVD-1943H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human IVD protein, fused to His-tag at N-terminus, was expressed in <i>E.coli</i> and purified by using conventional chromatography techniques, 45.3 kDa (415aa).
Species	Human
Source	E.coli
Description	IVD (Isovaleryl Coenzyme A dehydrogenase) is a mitochondrial matrix enzyme that belongs to the acyl-CoA dehydrogenase family. IVD is a homotetrameric flavoenzyme which catalyzes the conversion of isovaleryl-CoA to 3-methylcrotonyl-CoA. Defects of the IVD gene lead to ineffective isoforms that are the underlying cause of isovaleric acidemia.
Purity	> 90% by SDS – PAGE.
Physical Appearance	Liquid.
Formulation	In 20 mM Tris-HCl buffer (pH8.0) containing 1mM DTT, 10% glycerol.
Concentration	1 mg/ml (determined by Bradford assay).
Sequences Of Amino Acids	MGSSHHHHHH SSGLVPRGSH MHSLLPVDDA INGLSEEQRQ LRQTMAKFLQ EHLAPKAQEI DRSNEFKNLR EFWKQLGNLG VLGITAPVQY GGSGLGYLEH

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VLVMEEISRA SGAVGLSYGA HSNLCINQLV RNGNEAQKEK YLPKLISGEY
 IGALAMSEPN AGSDVVSMKL KAEKKGNHYI LNGNKFWITN GPDADVLIVY
 AKTDLAAVPA SRGITAFIVE KGMPGFSTSK KLDKLGMRGS NTCELIFEDC
 KIPAANILGH ENKGVYVLMS GLDLERLVLA GGPLGLMQAV LDHTIPYLHV
 REAFGQKIGH FQLMQGKMAD MYTRLMACRQ YVYNVAKACD EGHCTAKDCA
 GVILYSAECA TQVALDGIQC FGGNGYINDF PMGRFLRDAK LYEIGAGTSE
 VRRLVIGRAF NADFH.

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

IVD isovaleryl Coenzyme A dehydrogenase [Homo sapiens]

Synonyms

IVD; isovaleryl Coenzyme A dehydrogenase; ACAD2; FLJ12715; FLJ34849;
 isovaleryl-CoA dehydrogenase, mitochondrial; EC 1.3.99.10

Gene ID

3712

mRNA Refseq

NM_001159508

Protein Refseq

NP_001152980

MIM

607036

UniProt ID

B3KVI7

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Chromosome Location	15q14-q15
Function	FAD binding; isovaleryl-CoA dehydrogenase activity