

# Recombinant Human Isovaleryl Coenzyme A dehydrogenase, His-tagged

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

## SPECIFICATION

<b>Product Overview</b>	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).
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	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.
<b>Purity</b>	> 90% by SDS – PAGE.
<b>Physical Appearance</b>	Liquid.
<b>Formulation</b>	In 20 mM Tris-HCl buffer (pH8.0) containing 1mM DTT, 10% glycerol.
<b>Concentration</b>	1 mg/ml (determined by Bradford assay).
<b>Sequences Of Amino Acids</b>	MGSSHHHHHH SSGLVPRGSH MHSLLPVDDA INGLSEEQRQ LRQTMAKFLQ EHLAPKAQEI DRSNFKNLR EFWKQLGNLG VLGITAPVQY GGSGLGYLEH

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

VLVMEEISRA SGAVGLSYGA HSNLCINQLV RNGNEAQKEK YLPKLISGEY  
 IGALAMSEPN AGSDVVSMKL KAEKKGNYHI LNGNKFWITN GPDADVLIVY  
 AKTDLAAVPA SRGITAFIVE KGMPGFSTSK KLDKLGMRGS NTCELIFEDC  
 KIPAANILGH ENKGVVYVLS GDLRLVLA 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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<b>Chromosome Location</b>	15q14-q15
<b>Function</b>	FAD binding; isovaleryl-CoA dehydrogenase activity

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