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# Recombinant human IVD protein

Catalog Number: ATGP0487

### **PRODUCT INFORMATION**

### **Expression system**

E.coli

#### **Domain**

33-426aa

#### UniProt No.

P26440

#### **NCBI Accession No.**

NP 002216.2

#### **Alternative Names**

Isovaleryl-CoA dehydrogenase mitochondrial, ACAD2, Isovaleryl-CoA dehydrogenase, mitochondrial Isovaleryl CoA dehydrogenase, Isovaleryl CoA dehydrogenase, mitochondrial, isovaleryl Coenzyme A dehydrogenase.

#### PRODUCT SPECIFICATION

# **Molecular Weight**

45.3 kDa (415aa) confirmed by MALDI-TOF

#### Concentration

1mg/ml (determined by Bradford assay)

#### **Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol

#### **Purity**

> 90% by SDS-PAGE

#### Tag

His-Tag

# **Application**

SDS-PAGE

#### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

#### **BACKGROUND**

# **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. Recombinant human IVD protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.



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# **Amino acid Sequence**

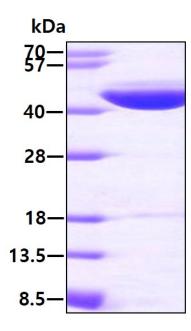
<MGSSHHHHHH SSGLVPRGSH> MHSLLPVDDA INGLSEEQRQ LRQTMAKFLQ EHLAPKAQEI DRSNEFKNLR EFWKQLGNLG VLGITAPVQY GGSGLGYLEH VLVMEEISRA SGAVGLSYGA HSNLCINQLV RNGNEAQKEK YLPKLISGEY IGALAMSEPN AGSDVVSMKL KAEKKGNHYI LNGNKFWITN GPDADVLIVY AKTDLAAVPA SRGITAFIVE KGMPGFSTSK KLDKLGMRGS NTCELIFEDC KIPAANILGH ENKGVYVLMS GLDLERLVLA GGPLGLMQAV LDHTIPYLHV REAFGQKIGH FQLMQGKMAD MYTRLMACRQ YVYNVAKACD EGHCTAKDCA GVILYSAECA TQVALDGIQC FGGNGYINDF PMGRFLRDAK LYEIGAGTSE VRRLVIGRAF NADFH

#### **General References**

Hodges PW., et al. (2009) Eur J Neurosci. 29(7):1490-500. Rohini R., et al. (2009) Eur J Med Chem. 44(8):3330-9.

# **DATA**

# **SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

