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# Recombinant human ALDH6A1 protein

Catalog Number: ATGP3087

## **PRODUCT INFORMATION**

### **Expression system**

E.coli

#### **Domain**

34-535aa

#### UniProt No.

002252

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

NP 005580

#### **Alternative Names**

Methylmalonate-semialdehyde dehydrogenase acylating mitochondrial isoform 1, MMSADHA, MMSDH

# PRODUCT SPECIFICATION

### **Molecular Weight**

56.8 kDa (525aa)

#### Concentration

0.25mg/ml (determined by Bradford assay)

#### **Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol, 1mM DTT

#### **Purity**

> 85% 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**

ALDH6A1 also known as Methylmalonate-semialdehyde dehydrogenase [acylating], mitochondrial. ALDH6A1 is a mitochondrial methylmalonate semialdehyde dehydrogenase that plays a role in the valine and pyrimidine catabolic pathways. This protein catalyzes the irreversible oxidative decarboxylation of malonate and methylmalonate semialdehydes to acetyl- and propionyl-CoA. ALDH6A1 deficiency is characterized by elevated beta-alanine, 3-hydroxypropionic acid, and both isomers of 3-amino and 3-hydroxyisobutyric acids in urine organic acids. Recombinant human ALDH6A1, fused to His-tag at N-terminus, was expressed in E. coli and



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purified by using conventional chromatography techniques.

# **Amino acid Sequence**

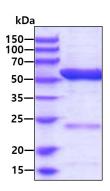
<MGSSHHHHHH SSGLVPRGSH MGS>SSSVPTV KLFIGGKFVE SKSDKWIDIH NPATNEVIGR VPQATKAEMD AAIASCKRAF PAWADTSVLS RQQVLLRYQQ LIKENLKEIA KLITLEQGKT LADAEGDVFR GLQVVEHACS VTSLMMGETM PSITKDMDLY SYRLPLGVCA GIAPFNFPAM IPLWMFPMAM VCGNTFLMKP SERVPGATML LAKLLQDSGA PDGTLNIIHG QHEAVNFICD HPDIKAISFV GSNKAGEYIF ERGSRHGKRV QANMGAKNHG VVMPDANKEN TLNQLVGAAF GAAGQRCMAL STAVLVGEAK KWLPELVEHA KNLRVNAGDQ PGADLGPLIT PQAKERVCNL IDSGTKEGAS ILLDGRKIKV KGYENGNFVG PTIISNVKPN MTCYKEEIFG PVLVVLETET LDEAIQIVNN NPYGNGTAIF TTNGATARKY AHLVDVGQVG VNVPIPVPLP MFSFTGSRSS FRGDTNFYGK QGIQFYTQLK TITSQWKEED ATLSSPAVVM PTMGR

#### **General References**

Sass JO., et al. (2012) J. Inherit. Metab. Dis. 35 (3), 437-442

#### **DATA**

#### **SDS-PAGE**



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

