

# Product information

## ALDH6A1, 34-535aa

Human, His-tagged, Recombinant, *E.coli*

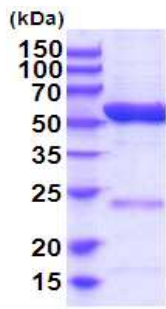
Cat. No. IBATGP3087

**Full name:** Methylmalonate-semialdehyde dehydrogenase [acylating], mitochondrial isoform 1

**Synonyms:** MMSADHA, MMSDH

**NCBI Accession No.:** NP\_005580

**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 purified by using conventional chromatography techniques.

<p><b>Form:</b> Liquid, In Phosphate buffered saline (pH7.4) containing 10% glycerol, 1mM DTT</p> <p><b>Molecular Weight:</b> 56.8kDa (525aa)</p> <p><b>Purity:</b> &gt; 85% by SDS - PAGE</p> <p><b>Concentration:</b> 0.25mg/ml (determined by Bradford assay)</p>	 <p>15% SDS-PAGE (3ug)</p>
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**Sequences of amino acids:**

MGSSHHHHH SSGLVPRGSH MGSSSSVPTV KLFIGGKFVE SKSDKWIDIH NPATNEVIGR VPQATKAEMD AAIASCKRAF PAWADTSVLS  
 RQQVLLRYQQ LIKENLKEIA KLITLEQGKT LADAEGDVFR GLQVVEHACS VTSLMMGETM PSITKMDLY SYRLPLGVCA GIAPNFPAM  
 IPLWMFPMAM VCGNTFLMKP SERVPGATML LAKLLQDSGA PDGTLNIHGH QHEAVNFICD HPDIKAISFV GSNKAGEYIF ERGSRHGKRV  
 QANMGAKNHG VVMPDANKEN TLNQLVGA AF GAAGQRCMAL STAVLVGEAK KWLPELVEHA KNLRVNAGDQ PGADLGPLIT PQA KERVCL  
 IDSGTKEGAS ILLDGRKIKV KGYENGNFVG PTIISNVKPN MTCYKEEIFG PVLVLETET LDEAIQIVNN NPYGNGTAIF TTNGATARKY  
 AHLVDVGQVG VNVPIPVPLP MFSFTGSRSS FRGDTNFYGK QGIQFYTLK TITSQWKEED ATLSPPAVVM PTMGR

**General references:**

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

**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.

**For research use only. This product is not intended or approved for human, diagnostics or veterinary use.**



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