

**ALDH6A1, 34-535aa , Human, His tag, E.coli**

**Cat.NO.: TP01127**

3th Edition

**Synonyms:** Methylmalonate-semialdehyde dehydrogenase acylating mitochondrial isoform 1 , MMSADHA, MMSDH

**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.

**Form:** Liquid, In Phosphate buffered saline (pH7.4) containing 10% glycerol, 1mM DTT

**Molecular Weight:** 56.8kDa (525aa)

**Sequences:**

MGSSHHHHHHSSGLVPRGSHMGSSSSVPTVKLFIGGKFVESKSDKWIDIHNPATNEVIGRVPQATKAEMDAAIASC  
KRAFPWADTSVLSRQQVLLRYQQLIKENLKEIAKLITLEQGKTLADAEGDVFRGLQVVEHACSVTSLMMGETMPSI  
TKDMDLYSYRLPLGVCAGIAPFNFPAMIPLWMFPMAMVCGNTFLMKPSERVPGATMLLAKLLQDSGAPDGTLNIIH  
GQHEAVNFICDHPDIKAISFVGSNKAGEYIFERGSRHGKRVQANMGAKNHGVVMPDANKENTLNQLVGAAFGAAG  
QRCMALSTAVLVGEAKKWLPVELVEHAKNLRVNAGDQPGADLGPLITPQAKERVCNLDISGTKEGASILLDRKIKVK  
GYENGNFVGPTIISNVKPNMTCYKEEIFGPVLVVLETETLDEAIQIVNNNPYNGTAIFTTNGATARKYAHLDVGVQV  
GVNVPIPVPLPMFSFTGSRSSFRGDTNIFYGKQGIGFYTLKLTITSQWKEEDATLSSPAVVMPMTMGR

**Purity:** > 95% by HPLC

**Concentration:** 0.25mg/ml (determined by Bradford assay)

**Endotoxin Level:** <1.0 EU per 1 ug of protein (determined by LAL method)

**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.