

Recombinant Human ALDH5A1, His-tagged

Cat. No. ALDH5A1-26496TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to amino acids 109-535 of Human ALDH5A1 with an N terminal His tag. Observed mwt: 56 kDa ;
Species	Human
Source	E.coli
ProteinLength	109-535 a.a.
Description	This protein belongs to the aldehyde dehydrogenase family of proteins. This gene encodes a mitochondrial NAD(+)-dependent succinic semialdehyde dehydrogenase. A deficiency of this enzyme, known as 4-hydroxybutyricaciduria, is a rare inborn error in the metabolism of the neurotransmitter 4-aminobutyric acid (GABA). In response to the defect, physiologic fluids from patients accumulate GHB, a compound with numerous neuromodulatory properties. Two transcript variants encoding distinct isoforms have been identified for this gene.
Conjugation	HIS
Tissue specificity	Brain, pancreas, heart, liver, skeletal muscle and kidney. Lower in placenta.
Form	Lyophilised:Reconstitute with 114 µl aqua dest.
Storage buffer	Preservative: NoneConstituents: 0.5% Trehalose, 6M Urea, 100mM Sodium phosphate, 10mM Sodium chloride, pH 4.5

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Storage	Shipped at 4°C. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	FCRWREVS AKERS SLLR KWYNLMIQNKDDLARIITAESGK PLKEAHGEILYSAFFLE WFSEEARRVYGDIIHTPAKDR RALVLKQPIGVA AVITPWNFPSAMITRKVGAALAAG CTVVVKPAEDTPFSALALAE LASQAGIPSGVY NVIPCSRKNA KEVGEAICTDPLVSKI SFTGSTTTG KILLHHAANSVKR VSMELGGLAPFIVFDSANVDQAVAGAMASKFRNT GQTCVCSNQFLVQRGIHDAFVKAF AEAMKKNLRVGN GFEEGTTQ GPLINEKAVEKV EKQVND AVSKGATVVTGGKRHQLGKN FFEPTLLCNVTQDMLCTHEETFGPLAPVIK FDTEEEAIAIANAADVGLAGYFYSQDPAQIWRVAEQLEVGMVGVNEGL ISSVECPFG GVKQSGLGREGSKYGIDEYLELKYVCYGG L
Sequence Similarities	Belongs to the aldehyde dehydrogenase family.
GENE INFORMATION	
Gene Name	ALDH5A1 aldehyde dehydrogenase 5 family, member A1 [Homo sapiens]
Official Symbol	ALDH5A1
Synonyms	ALDH5A1; aldehyde dehydrogenase 5 family, member A1; succinate-semialdehyde dehydrogenase, mitochondrial; SSADH; SSDH; succinate semialdehyde dehydrogenase;
Gene ID	7915
mRNA Refseq	NM_001080
Protein Refseq	NP_001071
MIM	610045

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Uniprot ID	P51649
Chromosome Location	6p22
Pathway	Alanine, aspartate and glutamate metabolism, organism-specific biosystem; Alanine, aspartate and glutamate metabolism, conserved biosystem; Butanoate metabolism, organism-specific biosystem; Butanoate metabolism, conserved biosystem; Degradation of GABA, organism-specific biosystem;
Function	oxidoreductase activity; protein homodimerization activity; succinate-semialdehyde dehydrogenase activity; succinate-semialdehyde dehydrogenase activity;

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