

## Recombinant Human ALDH5A1, His-tagged

Cat. No. ALDH5A1-2821H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant human ALDH5A1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques. MW = 54.6 kDa (509aa), confirmed by MALDI-TOF.

**Species** Human

**Source** E.coli

**Description** ALDH5A1 belongs to the aldehyde dehydrogenase family of proteins. This protein functions as a mediate the NADP<sup>+</sup>-dependent oxidation of aldehydes into acids and plays an important role in the detoxification of alcohol-derived acetaldehyde, as well as in lipid peroxidation and in the metabolism of corticosteroids, biogenic amines and neurotransmitters. ALDH5A1 is expressed in a variety of tissues, including liver, heart, lung, brain, kidney and placenta.

**Sequences Of Amino Acids**

MGSSHHHHHH SSGLVPRGSH MAGRLAGLSA ALLRTDSFVG GRWLPAAATF  
 PVQDPASGAA LGMVADCGVR EAAAVRAAY EAFCRWREVS AKERSLLRK  
 WYNLMIQNKD DLARIITAES GKPLKEAHGE ILYSAFFLEW FSEEARRVYG  
 DIIHTPAKDR RALVLKQPIG VAAVITPWNF PSAMITRKVG AALAAGCTVV  
 VKPAEDTPFS ALALAEASQ AGIPSGVYNV IPCSRKNAKE VGEAICTDPL  
 VSKISFTGST TTGKILLHHA ANSVKRVSME LGGLAPFIVF DSANVDQAVA  
 GAMASKFRNT GQTCVCSNQF LVQRGIHDAF VKAF AEAMKK NLRVGN GFEE  
 GTTQGPLINE KAVEKVEKQV NDAVSKGATV VTGGKRHQLG KNFFEPTLLC  
 NVTQDMLCTH EETFGPLAPV IKFDTEEEAI AIANAADVGL AGYFYSQDPA

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QIWRVAEQLE VGMVGVNEGL ISSVECPFGG VKQSGLGREG SKYGIDEYLE  
LKYYVCYGGL

**Purity** > 90% by SDS – PAGE.

**Form** Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol 1mM DTT, 0.1M NaCl, 1mM EDTA.

**Concentration** 0.5 mg/ml (determined by Bradford assay).

**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.

## GENE INFORMATION

**Gene Name** [ALDH5A1 aldehyde dehydrogenase 5 family, member A1 \[ Homo sapiens \]](#)

**Synonyms** ALDH5A1; aldehyde dehydrogenase 5 family, member A1; SSDH; SSADH; succinate-semialdehyde dehydrogenase, mitochondrial; OTTHUMP00000214394; aldehyde dehydrogenase family 5 member A1; mitochondrial succinate semialdehyde dehydrogenase; NAD(+)-dependent succinic semialdehyde dehydrogenase; EC 1.2.1.24

**Gene ID** [7915](#)

**mRNA Refseq** [NM\\_001080](#)

**Protein Refseq** [NP\\_001071](#)

**MIM** [610045](#)

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<b>UniProt ID</b>	P51649
<b>Chromosome Location</b>	6p22
<b>Pathway</b>	Alanine, aspartate and glutamate metabolism; Butanoate metabolism; Metabolic pathways
<b>Function</b>	oxidoreductase activity; protein homodimerization activity; succinate-semialdehyde dehydrogenase activity

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