

## Recombinant Human ALDH5A1, His-tagged

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

### SPECIFICATION

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>         | Recombinant humanALDH5A1 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.                                                                                                                                                                                                                                                                                                                                 |
| <b>Species</b>                  | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>                   | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Description</b>              | ALDH5A1 belongs to the aldehyde dehydrogenase family of proteins. This protein functions as a mediate the NADP+-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.                                                              |
| <b>Sequences Of Amino Acids</b> | MGSSHHHHHH SSGLVPRGSH MAGRLAGLSA ALLRTDSFVG GRWLPAAATF<br>PVQDPASGAA LGMVADCGVR EAAAVRAAY EAFCRWREVS AKERSSLLRK<br>WYNLMIQNKD DLARIITAES GKPLKEAHGE ILYSAFFLEW FSEEARRVYG<br>DIIHTPAKDR RALVLKQPIG VAAVITPWNF PSAMITRKVG AALAAGCTVV<br>VKPAEDTPFS ALALAEASQ AGIPSGVYNV IPCSRKNAKE VGEAICTDPL<br>VSKISFTGST TTGKILLHHA ANSVKRVSME LGGLAPFIVF DSANVDQAVA<br>GAMASKFRNT GQTCVCSNQF LVQRGIHDAF VKAFAEAMKK NLRVGNNGFEE<br>GTTQGPLINE KAVEKVEKQV NDAVSKGATV VTGGKRHQLG KNFFEPTLLC<br>NVTQDMLCTH EETFGPLAPV IKFDTEEEAI AIANAADVGL AGYFYSQDPA |

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QIWRVAEQLE VGMVGVNEGL ISSVECPFGG VKQSGLGREG SKYGIDEYLE  
LKYVCYGGGL

**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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