

**AR09661PU-N****Human ALDH5A1 / SSADH (48-535, His-tag) - Purified****Alternate names:**

Aldehyde dehydrogenase family 5 member A1, NAD(+)-dependent succinic semialdehyde dehydrogenase, Succinate-semialdehyde dehydrogenase, mitochondrial

**Quantity:**

50 µg

**Concentration:**

0.5 mg/ml (determined by Bradford assay)

**Background:**

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.

**Uniprot ID:**

[P51649](#)

**NCBI:**

[NP\\_001071](#)

**GeneID:**

[7915](#)

**Species:**

Human

**Source:**

E. coli

**Format:**

**State:** Liquid purified protein

**Purity:** >90% by SDS – PAGE

**Buffer System:** 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 1mM DTT, 0.1M NaCl, 1mM EDTA

**Description:**

Recombinant human ALDH5A1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.

**AA Sequence:**

MGSSHHHHHH SSGLVPRGSH MAGRLAGLSA ALLRTDSFVG GRWLPAAATF PVQDPASGAA  
LGMVADCGVR EARAAVRAAY EAFRCWREVS AKERSLLLRK WYNLMIQNKD DLARIITAES  
GKPLKEAHGE ILYSAFFLEW FSEEARVYVG DIIHTPAKDR RALVLKQPIG VAAVITPWNF  
PSAMITRKVG AALAAGCTVV VKPAEDTPFS ALALAEASQ AGIPSGVYNV IPCSRKNAKE  
VGEAICTDPL VSKISFTGST TTGKILLHHA ANSVKRVSME LGGLAPFIVF DSANVDQAVA  
GAMASKFRNT GQTCVCSNQF LVQRGIHDAF VKAFAEAMKK NLRVGNGFEE GTTQGPLINE  
KAVEKVEKQV NDAVSKGATV VTGGKRHQLG KNFFFEPTLLC NVTQDMLCTH EETFGPLAPV  
IKFDTEEEAI AIANAADVGL AGYFYSQDPA QIWRVAEQLE VGMVGVNEGL ISSVECPFGG  
VKQSGLGREG SKYGIDEYLE LKYVCYGGI

**Molecular weight:** 54.6 kDa (509aa), confirmed by MALDI-TOF

**Storage:**

Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

**General Readings:**

Akaboshi S., et al. (2003) Hum Mutat. 22(6):442-50.

Pictures:

Recombinant human ALDH5A1, 48-535  
aa, His-tagged

