



# Recombinant Human Delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial (ALDH4A1)

<b>Product Code</b>	CSB-YP001576HU
<b>Storage</b>	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
<b>Uniprot No.</b>	P30038
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	>85% (SDS-PAGE)
<b>Sequence</b>	KHTSSL KVANEPVLAF TQGSPERDAL QKALKDLKGR MEAIPCVVGD EEVWTSVDVQY QVSPFNHGHK VAKFCYADKS LLNKAIEAAL AARKEWDLKP IADRAQIFLK AADMLSGPRR AEILAKTMVG QGKTVIQAEI DAAAEIDIFF RFNAKYAVEL EGQQPISVPP STNSTVYRGL EGFVAAISPF NFTAIGGNLA GAPALMGNVV LWKPSDTAML ASYAVYRILR EAGLPPNIIQ FVPADGPLFG DTVTSSEHLC GINFTGSVPT FKHLWKQVAQ NLDRFHTFPR LAGECGGKNF HFVHRSADVE SVVSGTLRSA FEYGGQKCSA CSRLYVPHSL WPQIKGRLL EHSRIKVGDP AEDFGTFFSA VIDAKSFARI KKWLEHARSS PSLTILAGGK CDDSVGYFVE PCIVESKDPQ EPIMKEEIFG PVLVSVVYYPD DKYKETLQLV DSTTSYGLTG AVFSQDKDVV QEATKVL RNA AGNFYINDKS TGSIVGQQPF GGARASGTND KPGGPHYILR WTSPQVIKET HKPLGDWSYA YMQ
<b>Source</b>	Yeast
<b>Target Names</b>	ALDH4A1
<b>Protein Names</b>	Recommended name: Delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial Short name= P5C dehydrogenase EC= 1.5.1.12 Alternative name(s): Aldehyde dehydrogenase family 4 member A1
<b>Expression Region</b>	25-563
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Full Length of Mature Protein
<b>Target Details</b>	This protein belongs to the aldehyde dehydrogenase family of proteins. This enzyme is a mitochondrial matrix NAD-dependent dehydrogenase which catalyzes the second step of the proline degradation pathway, converting pyrroline-5-carboxylate to glutamate. Deficiency of this enzyme is associated with type II hyperprolinemia, an autosomal recessive disorder characterized by accumulation of delta-1-pyrroline-5-carboxylate (P5C) and proline. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene.



---

**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

---

**Shelf Life**

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.