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

Product Code	CSB-MP001576HU
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Uniprot No.	P30038
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	>85% (SDS-PAGE)
Sequence	KHTSSL KVANEPVLAF TQGSPERDAL QKALKDLKGR MEAIPCVVGD EEVWTSDVQY QVSPFNHGHK VAKFCYADKS LLNKAIEAAL AARKEWDLKP IADRAQIFLK AADMLSGPRR AEILAKTMVG QGKTVIQAEI DAAAELIDFF RFNAKYAVEL EGQQPISVPP STNSTVYRGL EGFVAAISPF NFTAIGGNLA GAPALMGNVV LWKPSDTAML ASYAVYRILR EAGLPPNIIQ FVPADGPLFG DTVTSSEHLC GINFTGSVPT FKHLWKQVAQ NLDRFHTFPR LAGECGGKNF HFVHRSADVE SVVSGTLRSA FEYGGQKCSA CSRLYVPHSL WPQIKGRLLE EHSRIKVGDP AEDFGTFFSA VIDAKSFARI KKWLEHARSS PSLTILAGGK CDDSVGYFVE PCIVESKDPQ EPIMKEEIFG PVLSVYVYPD DKYKETLQLV DSTTSYGLTG AVFSQDKDVV QEATKVLRNA AGNFYINDKS TGSIVGQQPF GGARASGTND KPGGPHYILR WTSPQVIKET HKPLGDWSYA YMQ
Source	Mammalian cell
Target Names	ALDH4A1
Protein Names	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
Expression Region	25-563
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag type will be determined during the manufacturing process.
Protein Length	Full Length of Mature Protein
Target Details	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.