



Recombinant Human Delta-1-pyrroline-5-carboxylate synthase (ALDH18A1)

Product Code	CSB-EP001564HU-B
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Uniprot No.	P54886
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	>85% (SDS-PAGE)
Sequence	<p> MLSQVYRCGF QPFNQHLLPW VKCTTVFRSH CIQPSVIRHV RSWSNIPFIT VPLSRTHGKS FAHRSELKHA KRIVVKLGSA VVTRGDECGL ALGRLASIVE QVSVLQNNQGR EMMLVTSGAV AFGKQRLRHE ILLSQSVRQA LHSGQNQLKE MAIPVLEARA CAAAGQSGLM ALYEAMFTQY SICAAQILVT NLDFHDEQKR RNLNGTLHEL LRMNIVPIVN TNDVVPPAE PNSDLQGVNV ISVKDNDSLA ARLAVEMKTD LLIVLSDVEG LFDSPPGSDD AKLIDIFYPG DQQSVTFGTK SRVGMGGMEA KVKAALWALQ GGTSVVIANG THPKVSGHVI TDIVEGKKVG TFFSEVKPAG PTVEQQGEMA RSGGRMLATL EPEQRAEIIH HLADLLTDQR DEILLANKKD LEEAEGRLAA PLLKRLSLST SKLNSLAIGL RQIAASSQDS VGRVLRRTRI AKNLELEQVT VPIGVLLVIF ESRPDCLPQV AALAIASGNG LLLKGGKEAA HSNRILHLLT QEALSIHGK EAVQLVNTRE EVEDLCRLDK MIDLIIPRGS SQLVRDIQKA AKGIPVMGHS EGICHMYVDS EASVDKVTRL VRDSKCEYPA ACNALETLI HRDLLRTPLF DQIIDMLRVE QVKIHAGPKF ASYLTFSPSE VKSLRTEYGD LELCIEVDN VQDAIDHIHK YGSSHTDVIV TEDENTAEFF LQHVDVSAFV WNASTRFSDG YRFLGLAEVG ISTSRIHARG PVGLEGLLTT KWLLRGKDHV VSDFSEHGSL KYLHENLPIP QRNTN </p>
Source	E.coli
Target Names	ALDH18A1
Protein Names	<p>Recommended name: Delta-1-pyrroline-5-carboxylate synthase Short name= P5CS Alternative name(s): Aldehyde dehydrogenase family 18 member A1 Including the following 2 domains: Glutamate 5-kinase Short name= GK EC= 2.7.2</p>
Expression Region	1-795
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 protein
Target Details	<p>This gene is a member of the aldehyde dehydrogenase family and encodes a bifunctional ATP- and NADPH-dependent mitochondrial enzyme with both gamma-glutamyl kinase and gamma-glutamyl phosphate reductase activities. The encoded protein catalyzes the reduction of glutamate to delta1-pyrroline-5-carboxylate, a critical step in the de novo biosynthesis of proline, ornithine and</p>



arginine. Mutations in this gene lead to hyperammonemia, hypoorithinemia, hypocitrullinemia, hypoargininemia and hypoprolinemia and may be associated with neurodegeneration, cataracts and connective tissue diseases. Alternatively spliced transcript variants, encoding different isoforms, have been described 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.