

Product datasheet for TP310726

P5CS (ALDH18A1) (NM_002860) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human aldehyde dehydrogenase 18 family, member A1 (ALDH18A1), nuclear gene encoding mitochondrial protein, transcript variant 1, 20 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC210726 protein sequence Red=Cloning site Green=Tags(s)

MLSQVYRCGFQPFNQHLLPWVKCTTVFRSHCIQPSVIRHVRSWSNIPFITVPLSRTHGKSFAHRSELKHA
KRIVVKLGSAVTRGDECGLALGRLASIVEQVSVLQNGREMLVTSVAVAFGKQRLRHEILLSQSVRQA
LHSGQNQLKEMAIPLVLEARACAAAGQSGLMALYEAMFTQYSICAAQILVTNLDHFDEQKRRNLNGTLHEL
LRMNIVPIVNTNDAVPPAEPNSDLQGVNVISVKDNDSLAARLAVEMKTDLLIVLSDVEGLFDSPPGSD
AKLIDIFYPGDQQSVTFGIKSRVGMGGMEAKVKAALWALQGGTSVVIANGTHPKVSGHVITDIVEGKKVG
TFFSEVKPAGPTVEQQGEMARSGGRMLATLEPEQRAEIIHHLADLLTDQRDEILLANKKDLEEAEGRLAA
PLLKRLSLSTSKLNSLAIGLRQIAASSQDSVGRVLRTRIAKNLELEQVTPIGVLLVIFESRPDCLPQV
AALAIASGNGLLLKGGKEAAHSNRILHLLTQEALSIHGVEAVQLVNTREEVEDLCRLDKMIDLIIPRGS
SQLVRDIQKAAKGIPVMGHSEGICHMYVDSEASVDKVRTLVDRSKCEYPAACNALETLLIHRDLLRTPLF
DQIIDMLRVEQVKIHAGPKFASYLTFSPSEVKSRLTEYGDLELCIEVDNVQDAIDHIIHKYGSSTHDVIV
TEDENTAEFFLQHVDACVFWNASTRFSDGYRFGGLGAEVGISTRIHARGPVGLEGLLTTKWLLRGKDHV
VSDFSEHGSLKYLHENLPIQRNTN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Predicted MW:	87.1 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.



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Note: For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

Storage: Store at -80°C.

Stability: Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

RefSeq: [NP_002851](#)

Locus ID: 5832

UniProt ID: [P54886](#)

RefSeq Size: 3470

Cytogenetics: 10q24.1

RefSeq ORF: 2385

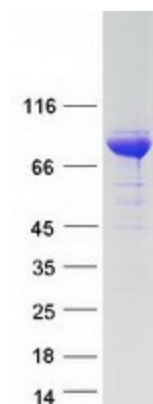
Synonyms: ADCL3; ARCL3A; GSAS; P5CS; PYCS; SPG9; SPG9A; SPG9B

Summary: 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 arginine. Mutations in this gene lead to hyperammonemia, hypoorithinemia, hypocitrullinemia, hypoargininemia and hypoprolineamia and may be associated with neurodegeneration, cataracts and connective tissue diseases. Alternatively spliced transcript variants, encoding different isoforms, have been described for this gene. [provided by RefSeq, Jul 2008]

Protein Families: Druggable Genome

Protein Pathways: Arginine and proline metabolism, Metabolic pathways

Product images:



Coomassie blue staining of purified ALDH18A1 protein (Cat# TP310726). The protein was produced from HEK293T cells transfected with ALDH18A1 cDNA clone (Cat# [RC210726]) using MegaTran 2.0 (Cat# [TT210002]).