

## Product datasheet for TP310726L

### 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, 1 mg |
| Species:                              | Human  |
| Expression Host:                      | HEK293T  |
| Expression cDNA Clone or AA Sequence: | >RC210726 protein sequence<br>Red=Cloning site Green=Tags(s)   |

MLSQVYRCGFQPFNQHLLPWVKCTTVFRSHCIQPSVIRHVRWSNIPFITVPLSRTHGKSFAHRSELKHA  
KRIVVKLGSAVTRGDECGLALGRLASIVEQVSVLQNGREMLVTSVAVAFGKQRLRHEILLSQSVRQA  
LHSGQNQLKEMAIPLVLEARACAAAGQSGLMALYEAMFTQYSICAAQILVTNLDFHDEQKRRNLNGTLHEL  
LRMNIVPIVNTNDAVPPAEPNSDLQGVNVISVKDNDSLAARLAVEMKTDLLIVLSDVEGLFDSPPGSD  
AKLIDIFYPGDQQSVTFGIKSRVGMGGMEAKVKAALWALQGGTSVVIANGTHPKVSGHVITDIVEGKKVG  
TFFSEVKPAGPTVEQQGEMARSGGRMLATLEPEQRAEIIHHLADLLTDQRDEILLANKKDLEEAEGRLAA  
PLLKRLSLSTSKLNSLAIGLRQIAASSQDSVGRVLRTRIAKNLELEQVTPIGVLLVIFESRPDCLPQV  
AALAIASGNGLLLKGGKEAAHSNRILHLLTQEALSIHGVEAVQLVNTREEVEDLCRLDKMIDLIIPRGS  
SQLVRDIQKAAKGIPVMGHSEGICHMYVDSEASVDKVRTLRVDSKCEYPAACNALETLLIHRDLLRTPLF  
DQIIDMLRVEQVKIHAGPKFASYLTFSPSEVKSRLTEYGDLELCIEVDNVQDAIDHIIHKYGSSTHDVIV  
TEDENTAEFFLQHVDACVFNASTRFSDGYRFLGAEVGISSRIHARGPVGLEGLLTKWLLRGKDHV  
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

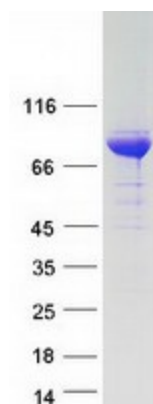
**Synonyms:** ADCL3; ARCL3A; GSAS; P5CS; PYCS; SPG9; SPG9A; SPG9B

**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]).