

Product datasheet for PH310726

P5CS (ALDH18A1) (NM_002860) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	ALDH18A1 MS Standard C13 and N15-labeled recombinant protein (NP_002851)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC210726
Predicted MW:	87.3 kDa
Protein Sequence:	>RC210726 protein sequence Red=Cloning site Green=Tags(s)

MLSQVYRCGFQPFNQHLLPWVKCTTVFRSHCIQPSVIRHVRSWSNIPFITVPLSRTHGKSFHRSELKHA
KRIYVVKLGSAVVTRGDEGLALGRLASIVEQVSVLQNQGEMMLVTSGAVAFGKQRLRHEILLSQSVRQA
LHSGQNQLKEMAIIPVLEARACAAAGQSGLMALYEMFTQYSICAAQILVTNLDHFDEQKRRNLNGLHEL
LRMNIVPINTNDAVVPPAEPNSDLQGVNVISVKDNDLAARLAVEMKTDLLIVLSDVEGLFDSPPGSD
AKLIDIFYPGDQSVTFGIKSRVGMGGMEAKVKAALWALQGGTSVVIANGTHPKVSGHVITDIVEGKKG
TFFSEVKPAGPTVEQQGEMARSGRMLATLEPEQRAEIIHHLADLLTDQRDEILLANKKDLEEAEGLAA
PLLKRLSLSTSKLNSLAIGLRQIAASSQDSVGRVLRRTRIAKNLELEQVTPIGVLLVIFESRPDCLPQV
AALAIASGNGLLLKGGKEAAHSNRILHLLTQEALSIHGKVEAVQLVNTREEVEDLCRLDKMIDLII PRGS
SQLVRDIQKAAKGIPVMGHSEGI CHMYVDSEASVDKVTRLV RDSKCEYPAACNALETLLIHRDLLRTPLF
DQIIDMLRVEQVKIHAGPKFASYLTFSPSEVKSRLRTEYGDLELCIEVVDNVQDAIDHIHKYSSHTDVIV
TEDENTAEEFFLQHVDASACVFNASTRFSDGYRFGGLGAEVGISTSRIHARGPVGLEGLLTTKWLLRGKDHV
VSDFSEHGSLKYLHENLPIQRNTN

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_002851



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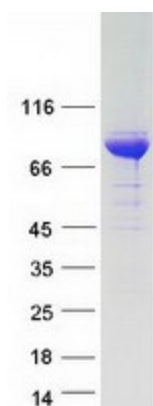
RefSeq Size:	3470
RefSeq ORF:	2385
Synonyms:	ADCL3; ARCL3A; GSAS; P5CS; PYCS; SPG9; SPG9A; SPG9B
Locus ID:	5832
UniProt ID:	P54886
Cytogenetics:	10q24.1

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 hypoprolineemia 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]).