

Recombinant Full Length Human ALDH18A1 Protein, GST-tagged

Cat. No. ALDH18A1-1399HF **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human ALDH18A1 full-length ORF (ADR83253.1, 1 a.a. - 795 a.a.) recombinant protein with GST tag at N-terminal.
Species	Human
Source	In Vitro Cell Free System
ProteinLength	795 amino acids
Description	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 hypoproline 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]
Molecular Mass	113.9 kDa
AA Sequence	MLSQVYRCGF QPFNQHLLPW VKCTTVFRSH CIQPSVIRHV RSWSNIPFIT VPLSRTHGKS FAHRSELKHA KRIVVKLGSA VVTRGDECGL ALGRLASIVE QVSVLQNQGR EMMMLVTSGAV AFGKQRLRHE ILLSQSVRQA LHSGQNQLKE

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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 AALAIASNG
 LLLKGGKEAA HSNRILHLLT QEALSIHGVK EAVQLVNTRE EVEDLCRLDK
 MIDLIIPRGS SQLVRDIQKA AKGIPVMGHS EGICHMYVDS EASVDKVRTL
 VRDSKCEYPA ACNALETLLI HRDLLRTPLF DQIIDMLRVE QVKIHAGPKF
 ASYLTFFSPSE VKSLRTEYGD LELCIEVVDN VQDAIDHIHK YGSSHTDVIV
 TEDENTAIEFF LQHVD SACVF WNASTRFSDG YRFG LGAEVG ISTSRIHARG
 PVGLEGLTT KWLLRGKDHV VSDFSEHGSL KYLHENLPIP QRNTN

Applications

Enzyme-linked Immunoabsorbent Assay; Western Blot (Recombinant protein);
 Antibody Production; Protein Array

Storage

Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

Gene Name

ALDH18A1 aldehyde dehydrogenase 18 family, member A1 [Homo sapiens]

Official Symbol

ALDH18A1

Synonyms

ALDH18A1; aldehyde dehydrogenase 18 family, member A1; GSAS, PYCS, pyrroline
 5 carboxylate synthetase (glutamate gamma semialdehyde synthetase); delta-1-
 pyrroline-5-carboxylate synthase; P5CS; delta1-pyrroline-5-carboxylate synthetase;

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aldehyde dehydrogenase family 18 member A1; delta-1-pyrroline-5-carboxylate synthetase; pyrroline-5-carboxylate synthetase (glutamate gamma-semialdehyde synthetase); GSAS; PYCS; ARCL3A; MGC117316

Gene ID 5832

mRNA Refseq NM_001017423

Protein Refseq NP_001017423

MIM 138250

UniProt ID P54886

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