Recombinant Human Aldehyde Dehydrogenase 4 Family, Member A1, GST-tagged

Cat. No. ALDH4A1-499H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	RecombinantHuman ALDH4A1 protein was expressed as GST-tagged fusion proteins by E. coli andpurified by GSH-sepharose. The purified ALDH4A1 was resolved in 1M PBS (58mMNa2HPO4, 17mM NaH2PO4, 68mM NaCl,pH8) added with 100mM GSH and 1% Triton X-100, 15% glycerol.
Species	Human
Source	E.coli
Description	Delta-1-pyrroline-5-carboxylatedehydrogenase, mitochondrial is an enzyme that in hu mans is encoded by theALDH4A1 gene. This protein belongs to the aldehyde dehydr ogenase family ofproteins. This enzyme is a mitochondrial matrix NAD-dependent de hydrogenasethat catalyzes the second step of the proline degradation pathway, conv ertingpyrroline-5-carboxylate to glutamate. Deficiency of this enzyme is associatedwit h type II hyperprolinemia, an autosomal recessive disorder characterizedby accumula tion of delta-1-pyrroline-5-carboxylate (P5C) and proline. Twotranscript variants encod ing the same protein have been identified for thisgene.
Antigen Peptide	C-term-351aa
Full Length	False
Buffer	1MPBS (58mM Na2HPO4, 17mM NaH2PO4,68mM NaCl, pH8) added with 100mM GSH and 1% Triton X-100, 15% glycerol.

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Storage	Theprotein is stored in PBS at -20°C. Repeatedfreeze-thaw cycles should be avoided.

GENE INFORMATION

Gene Name	ALDH4A1 aldehyde dehydrogenase 4family, member A1 [Homo sapiens]
Official Symbol	ALDH4A1
Synonyms	ALDH4A1; aldehyde dehydrogenase4 family, member A1; P5CD; ALDH4; P5CDh; DKFZp779M035;delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial; P5Cdehydrogenase; OTTHUMP00000002544; OTTHUMP00000002545; OTTHUMP00000002546; aldehydedehydrogenase family 4 member A1; mitochondrial delta-1-pyrroline5-carboxylate dehydrogenase; P5C; P5CDH; EC1.5.1.12
Gene ID	8659
mRNA Refseq	NM_001161504
Protein Refseq	NP_001154976
MIM	606811
UniProt ID	P30038
Chromosome Location	1p36
Pathway	4-hydroxyprolinedegradation I; Alanine, aspartate and glutamate metabolism; Alanine andproline metabolism; Metabolic pathways; metabolism;metabolism of amino acids and derivatives; proline catabolism; arginine degradation I (arginase pathway); proline

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	degradation
Function	1-pyrroline-5-carboxylate dehydrogenase activity; aldehydedehydrogenase (NAD) activity; electron carrier activity; oxidoreductaseactivity

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