

Rabbit ALDH4A1 Polyclonal Antibody | anti-ALDH4A1 antibody

ALDH4A1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326793	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

ALDH4A1; Polyclonal Antibody; ALDH4A1 Antibody; AL4A1_HUMAN; aldehyde dehydrogenase 4; aldehyde dehydrogenase 4 family; member A1; Aldehyde dehydrogenase family 4 member A1; Aldehyde dehydrogenase; family 4; subfamily A; member 1; ALDH4; aldh4a1; Delta 1 pyrroline 5 carboxylate dehydrogenase; mitochondrial; Delta-1-pyrroline-5-carboxylate dehydrogenase; L-glutamate gamma-semialdehyde dehydrogenase; mitochondrial delta-1-pyrroline 5-carboxylate dehydrogenase; P5C dehydrogenase; P5CD; P5CDh; P5CDhL; P5CDhS; Pyrroline-5-carboxylate dehydrogenase; RP11 128M10.1; anti-ALDH4A1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	ALDH4A1 antibody detects endogenous levels of total ALDH4A1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	503
Applicable Applications for anti-ALDH4A1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ALDH4A1
Subcellular Location	Mitochondrion Matrix.
Tissue Specificity	Highest expression is found in liver followed by skeletal muscle, kidney, heart, brain, placenta, lung and pancreas.
Predicted Cross Reactivity	Zebrafish, Bovine, Horse, Sheep, Rabbit, Chicken, Xenopus
Similarity	Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (92%), Chicken (83%), Xenopus (92%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of Hepg2 whole cell lysates, using ALDH4A1 Antibody. The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)
AAA326793 at 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-ALDH4A1 antibody	Description: This protein belongs to the aldehyde dehydrogenase family of proteins. This enzyme is a mitochondrial matrix NAD-dependent dehydrogenase which catalyzes the second step of the proline degradation pathway, converting pyrroline-5-carboxylate to glutamate. Deficiency of this enzyme is associated with type II hyperprolinemia, an autosomal recessive disorder characterized by accumulation of delta-1-pyrroline-5-carboxylate (P5C) and proline. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene. Function: Irreversible conversion of delta-1-pyrroline-5-carboxylate (P5C), derived either from proline or ornithine, to glutamate. This is a necessary step in the pathway interconnecting the urea and tricarboxylic acid cycles. The preferred substrate is glutamic gamma-semialdehyde, other substrates include succinic, glutaric and adipic semialdehydes. Subunit Structure: Homodimer. Similarity: Belongs to the aldehyde dehydrogenase family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	238859541
NCBI GeneID	8659
NCBI Accession #	NP_001154976.1
NCBI GenBank Nucleotide #	NM_001161504.1
UniProt Accession #	P30038; Q16882; Q53HU4; Q5JNV6; Q8IZ38; Q96IF0; Q9UDI6; A8K1Q7; B4DGE4; D2D4A3
Molecular Weight	Observed: 62 kDa Predicted: 62 kDa
NCBI Official Full Name	delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial isoform b
NCBI Official Synonym Full Names	aldehyde dehydrogenase 4 family member A1
NCBI Official Symbol	ALDH4A1
NCBI Official Synonym Symbols	P5CD; ALDH4; P5CDh
NCBI Protein Information	delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial
UniProt Protein Name	Delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial
UniProt Gene Name	ALDH4A1
UniProt Synonym Gene Names	ALDH4; P5CDH; P5C dehydrogenase

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.