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ALDH4A1 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP7875c

Specification

ALDH4A1 Antibody (Center) Blocking Peptide - Product Information

Primary Accession P30038

ALDH4A1 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 8659

Other Names
Delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial, P5C dehydrogenase, Aldehyde dehydrogenase family 4 member A1, L-glutamate gamma-semialdehyde dehydrogenase, ALDH4A1, ALDH4, P5CDH

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7875c was selected from the Center region of human ALDH4A1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ALDH4A1 Antibody (Center) Blocking Peptide - Protein Information

Name ALDH4A1

Synonyms ALDH4, P5CDH

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.

Cellular Location
Mitochondrion matrix.

Tissue Location
Highest expression is found in liver followed by skeletal muscle, kidney, heart, brain, placenta, lung and pancreas

ALDH4A1 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

ALDH4A1 Antibody (Center) Blocking Peptide - Images

ALDH4A1 Antibody (Center) Blocking Peptide - Background

ALDH4A1 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.

ALDH4A1 Antibody (Center) Blocking Peptide - References

Yoon,K.A., J. Hum. Genet. 49 (3), 134-140 (2004)Geraghty,M.T., Hum. Mol. Genet. 7 (9), 1411-1415 (1998)