

**ALDH4A1 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP7875b****Specification**

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**ALDH4A1 Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [P30038](#)**ALDH4A1 Antibody (C-term) 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 [AP7875b](/products/AP7875b) was selected from the C-term 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 (C-term) 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 (C-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**ALDH4A1 Antibody (C-term) Blocking Peptide - Images****ALDH4A1 Antibody (C-term) 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 (C-term) 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)