

KD-Validated Anti-ALDH4A1 Mouse Monoclonal Antibody
Mouse monoclonal antibody
Catalog # AGI1117**Specification****KD-Validated Anti-ALDH4A1 Mouse Monoclonal Antibody - Product Information**

Application	WB
Primary Accession	P30038
Reactivity	Rat, Human
Clonality	Monoclonal
Isotype	Mouse IgG1
Calculated MW	Predicted, 62 kDa, observed, 62 kDa kDa
Gene Name	ALDH4A1
Aliases	ALDH4A1; Aldehyde Dehydrogenase 4 Family Member A1; L-Glutamate Gamma-Semialdehyde Dehydrogenase; P5CDH; ALDH4; Delta-1-Pyrroline-5-Carboxylate Dehydrogenase, Mitochondrial; Aldehyde Dehydrogenase Family 4 Member A1; P5C Dehydrogenase; Mitochondrial Delta-1-Pyrroline 5-Carboxylate Dehydrogenase; Delta-1-Pyrroline-5-Carboxylate Dehydrogenase; Aldehyde Dehydrogenase 4 Family, Member A1; Epididymis Secretory Sperm Binding Protein; EC 1.2.1.88; EC 1.5.1.12; P5CDH; P5CD
Immunogen	Recombinant protein of human ALDH4A1

KD-Validated Anti-ALDH4A1 Mouse Monoclonal Antibody - Additional Information

Gene ID	8659
Other Names	Delta-1-pyrroline-5-carboxylate dehydrogenase, mitochondrial, P5C dehydrogenase, 1.2.1.88, Aldehyde dehydrogenase family 4 member A1, L-glutamate gamma-semialdehyde dehydrogenase, ALDH4A1, ALDH4, P5CDH

KD-Validated Anti-ALDH4A1 Mouse Monoclonal Antibody - 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

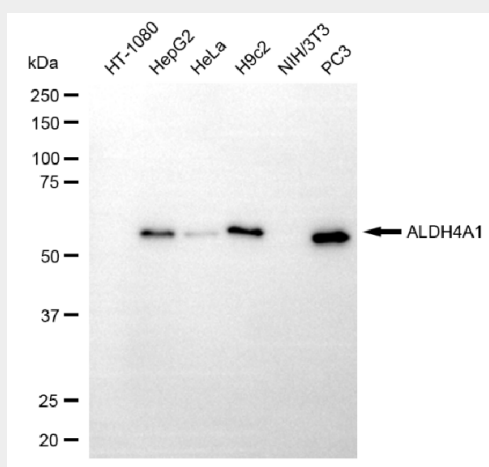
Highest expression is found in liver followed by skeletal muscle, kidney, heart, brain, placenta, lung and pancreas

KD-Validated Anti-ALDH4A1 Mouse Monoclonal Antibody - Protocols

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

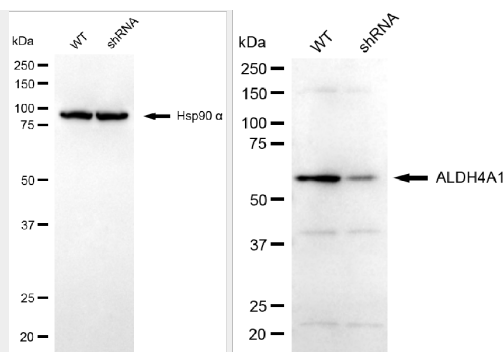
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
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KD-Validated Anti-ALDH4A1 Mouse Monoclonal Antibody - Images



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Western blotting analysis using anti-ALDH4A1 antibody (Cat#AGI1117). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-ALDH4A1 antibody (Cat#AGI1117, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody respectively.



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Western blotting analysis using anti-ALDH4A1 antibody (Cat#AGI1117). ALDH4A1 expression in wild-type (WT) and ALDH4A1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-ALDH4A1 antibody (Cat#AGI1117, 1:1,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.