

Anti-ALDH7A1 Picoband Antibody
Catalog # ABO11656**Specification**

Anti-ALDH7A1 Picoband Antibody - Product Information

Application	WB, IHC
Primary Accession	P49419
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Alpha-amino adipic semialdehyde dehydrogenase (ALDH7A1) detection. Tested with WB, IHC-P in Human; Mouse; Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-ALDH7A1 Picoband Antibody - Additional Information

Gene ID 501

Other Names

Alpha-amino adipic semialdehyde dehydrogenase, Alpha-AASA dehydrogenase, 1.2.1.31, Aldehyde dehydrogenase family 7 member A1, 1.2.1.3, Antiquitin-1, Betaine aldehyde dehydrogenase, 1.2.1.8, Delta1-piperidine-6-carboxylate dehydrogenase, P6c dehydrogenase, ALDH7A1, ATQ1

Calculated MW

58487 MW KDa

Application Details

Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Cytoplasm, cytosol . Nucleus .

Tissue Specificity

Abundant in hepatoma cells and fetal cochlea, ovary, eye, heart, adrenal gland, liver and kidney. Low levels present in adult peripheral blood leukocytes and fetal brain, thymus, spleen, skeletal muscle, lung and tongue. .

Protein Name

Alpha-amino adipic semialdehyde dehydrogenase

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃N.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human ALDH7A1 (333-369aa ARRLFIHESI HDEVVNRLKKAYAQIRVGNPWDPNVLY), different from the related mouse sequence by eight amino acids, and from the related rat sequence by six amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-ALDH7A1 Picoband Antibody - Protein Information

Name ALDH7A1 ([HGNC:877](#))

Synonyms ATQ1

Function

Multifunctional enzyme mediating important protective effects. Metabolizes betaine aldehyde to betaine, an important cellular osmolyte and methyl donor. Protects cells from oxidative stress by metabolizing a number of lipid peroxidation-derived aldehydes. Involved in lysine catabolism.

Cellular Location

[Isoform 2]: Cytoplasm, cytosol. Nucleus

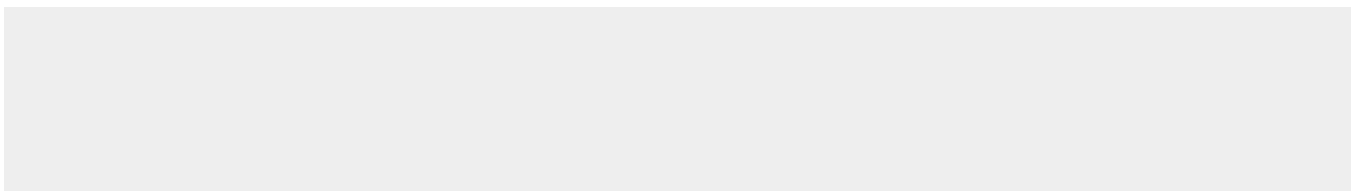
Tissue Location

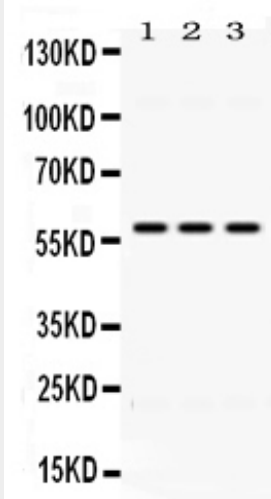
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Anti-ALDH7A1 Picoband Antibody - Protocols

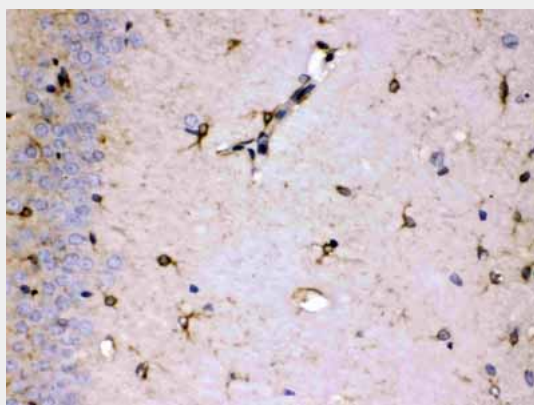
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

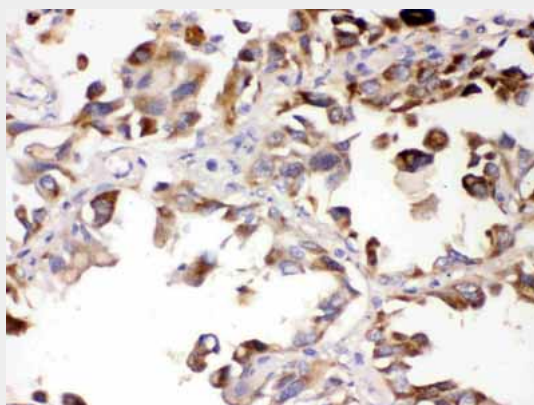
Anti-ALDH7A1 Picoband Antibody - Images



Western blot analysis of ALDH7A1 expression in rat liver extract (lane 1), HEPA whole cell lysates (lane 2) and HELA whole cell lysates (lane 3). ALDH7A1 at 58KD was detected using rabbit anti-ALDH7A1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11656) at 0.5 μ g/mL. The blot was developed using chemiluminescence (ECL) method .



ALDH7A1 was detected in paraffin-embedded sections of rat brain tissues using rabbit anti-ALDH7A1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11656) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .



ALDH7A1 was detected in paraffin-embedded sections of human lung cancer tissues using rabbit anti-ALDH7A1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11656) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .

Anti-ALDH7A1 Picoband Antibody - Background

Aldehyde dehydrogenase 7 family, member A1, also known as ALDH7A1 or antiquitin, is an enzyme that in humans is encoded by the ALDH7A1 gene. The protein encoded by this gene is a member of subfamily 7 in the aldehyde dehydrogenase gene family. These enzymes are thought to play a major role in the detoxification of aldehydes generated by alcohol metabolism and lipid peroxidation. This particular member has homology to a previously described protein from the green garden pea, the 26g pea turgor protein. It is also involved in lysine catabolism that is known to occur in the mitochondrial matrix. Recent reports show that this protein is found both in the cytosol and the mitochondria, and the two forms likely arise from the use of alternative translation initiation sites. An additional variant encoding a different isoform has also been found for this gene. Mutations in this gene are associated with pyridoxine-dependent epilepsy. Several related pseudogenes have also been identified.