

Anti-ALDH3A2 Picoband Antibody
Catalog # ABO12667**Specification****Anti-ALDH3A2 Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	P51648
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Fatty aldehyde dehydrogenase(ALDH3A2) detection. Tested with WB, IHC-P in Human;Rat.

Reconstitution

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

Anti-ALDH3A2 Picoband Antibody - Additional Information

Gene ID 224

Other Names

Fatty aldehyde dehydrogenase, 1.2.1.3, Aldehyde dehydrogenase 10, Aldehyde dehydrogenase family 3 member A2, Microsomal aldehyde dehydrogenase, ALDH3A2, ALDH10, FALDH

Calculated MW

54848 MW KDa

Application Details

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

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

Subcellular Localization

Endoplasmic reticulum membrane ; Single-pass membrane protein ; Cytoplasmic side .

Protein Name

Fatty aldehyde dehydrogenase

Contents

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

Immunogen

E.coli-derived human ALDH3A2 recombinant protein (Position: M1-Q100). Human ALDH3A2 shares 78% amino acid (aa) sequence identity with both mouse and rat ALDH3A2.

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-ALDH3A2 Picoband Antibody - Protein Information

Name ALDH3A2

Function

Catalyzes the oxidation of medium and long chain aliphatic aldehydes to fatty acids. Active on a variety of saturated and unsaturated aliphatic aldehydes between 6 and 24 carbons in length (PubMed: [18035827](http://www.uniprot.org/citations/18035827)), PubMed: [18182499](http://www.uniprot.org/citations/18182499), PubMed: [22633490](http://www.uniprot.org/citations/22633490), PubMed: [25047030](http://www.uniprot.org/citations/25047030), PubMed: [9133646](http://www.uniprot.org/citations/9133646), PubMed: [9662422](http://www.uniprot.org/citations/9662422)). Responsible for conversion of the sphingosine 1-phosphate (S1P) degradation product hexadecenal to hexadecenoic acid (PubMed: [22633490](http://www.uniprot.org/citations/22633490)).

Cellular Location

Microsome membrane; Single-pass membrane protein. Endoplasmic reticulum membrane; Single-pass membrane protein; Cytoplasmic side {ECO:0000250|UniProtKB:P30839}

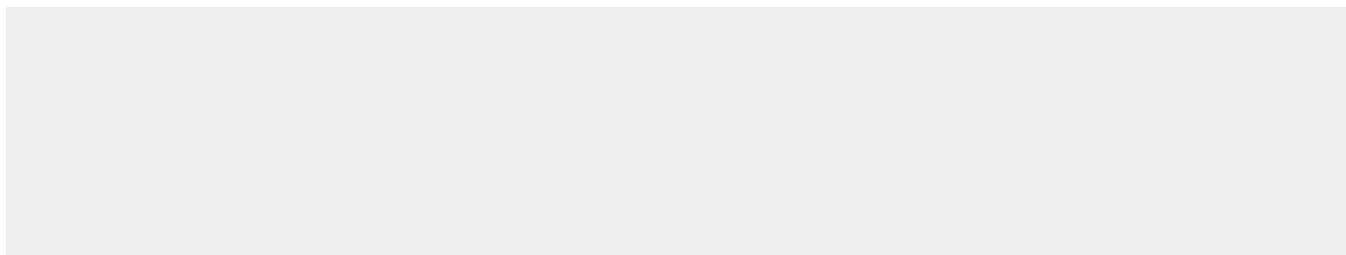
Tissue Location

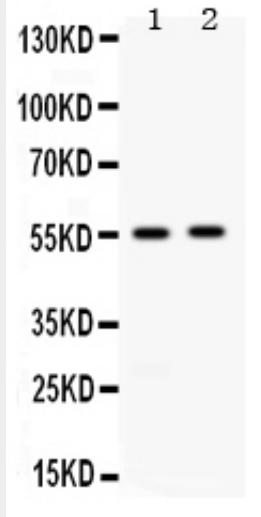
Detected in liver (at protein level).

Anti-ALDH3A2 Picoband Antibody - Protocols

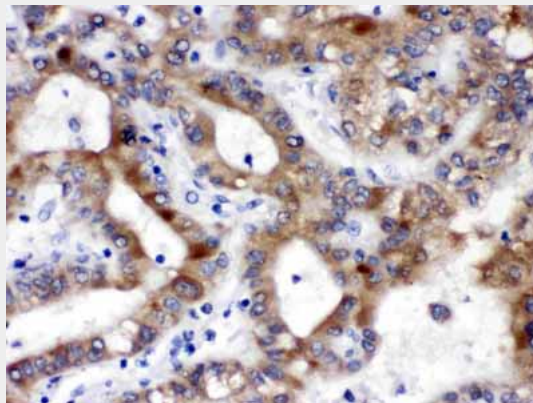
Provided below are standard protocols that you may find useful for product applications.

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

Anti-ALDH3A2 Picoband Antibody - Images



Western blot analysis of ALDH3A2 expression in rat liver extract (lane 1) and 22RV1 whole cell lysates (lane 2). ALDH3A2 at 55KD was detected using rabbit anti- ALDH3A2 Antigen Affinity purified polyclonal antibody (Catalog # ABO12667) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method .



ALDH3A2 was detected in paraffin-embedded sections of human liver cancer tissues using rabbit anti- ALDH3A2 Antigen Affinity purified polyclonal antibody (Catalog # ABO12667) at 1 µg/mL. The immunohistochemical section was developed using SABC method .

Anti-ALDH3A2 Picoband Antibody - Background

Fatty aldehyde dehydrogenase (or Long-chain-aldehyde dehydrogenase) is an aldehyde dehydrogenase enzyme that in human is encoded in the ALDH3A2 gene on chromosome 17. ALDH3A2 catalyzes the oxidation of long-chain aliphatic aldehydes into fatty acids. It is known to act on a variety of both saturated and unsaturated aliphatic aldehydes between 6 to 24 carbons in length, as well as dihydrophytal, a 20-carbon branched chain aldehyde. It requires NAD⁺ as a co-factor. The encoded enzyme is responsible for conversion of the sphingosine 1-phosphate (S1P) degradation product hexadecenal to hexadecenoic acid. ALD3H2 is expressed in the human liver and has been found to localize the microsome fraction inside the cell.