

Anti-ALDH3A2 Antibody Picoband®

Catalog Number: PB9982

About ALDH3A2

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 microsomal fraction inside the cell.

Overview

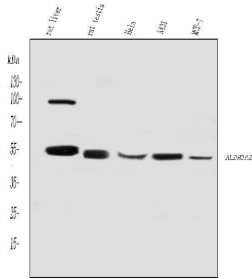
Product Name	Anti-ALDH3A2 Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-ALDH3A2 Antibody Picoband® catalog # PB9982. Tested in IHC, WB applications. This antibody reacts with Human, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg NaN ₃ . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P51648

Technical Details

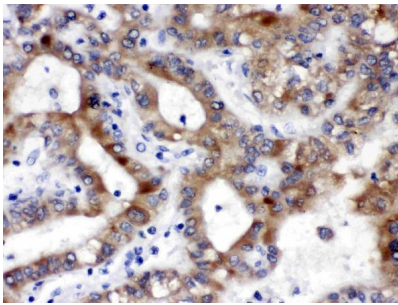
Immunogen	E.coli-derived human ALDH3A2 recombinant protein (Position: M1-Q100). Human ALDH3A2 shares 78% amino acid (aa) sequence identity with both mouse and rat ALDH3A2.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

	blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Western blot, 0.1-0.5ug/ml, Human, Rat

Anti-ALDH3A2 Antibody Picoband® (PB9982) Images



Western blot analysis of ALDH3A2 using anti-ALDH3A2 antibody (PB9982). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat liver tissue lysates, Lane 2: rat testis tissue lysates, Lane 3: human Hela whole cell lysates, Lane 4: human A431 whole cell lysates, Lane 5: human MCF-7 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ALDH3A2 antigen affinity purified polyclonal antibody (Catalog # PB9982) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for ALDH3A2 at approximately 55 kDa. The expected band size for ALDH3A2 is at 55 kDa.



IHC analysis of ALDH3A2 using anti-ALDH3A2 antibody (PB9982). ALDH3A2 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-ALDH3A2 Antibody (PB9982) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

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Anti-ALDH3A2 Antibody

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