

## Basic Information

Product Name	Anti-ALDH3A1 Antibody	
Gene Name	ALDH3A1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human	
Tested Application	WB, IHC, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human ALDH3A1 recombinant protein (Position: E62-H101).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	55 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Enzyme linked immunosorbent assay (ELISA): 1:100-1000 Flow Cytometry (Fixed): 1:50-200 Immunohistochemistry (IHC): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

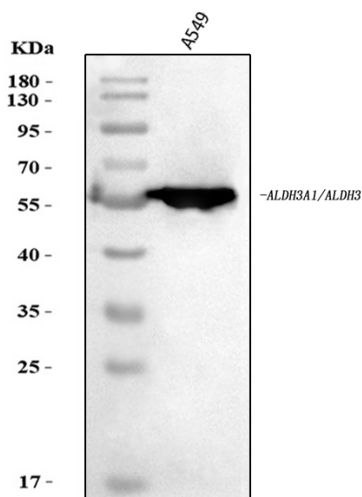
## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

Aldehyde dehydrogenase, dimeric NADP-preferring is an enzyme that in humans is encoded by the ALDH3A1 gene. Aldehyde dehydrogenases oxidize various aldehydes to the corresponding acids. They are involved in the detoxification of alcohol-derived acetaldehyde and in the metabolism of corticosteroids, biogenic amines, neurotransmitters, and lipid peroxidation. The enzyme encoded by this gene forms a cytoplasmic homodimer that preferentially oxidizes aromatic and medium-chain (6 carbons or more) saturated and unsaturated aldehyde substrates. It is thought to promote resistance to UV and 4-hydroxy-2-nonenal-induced oxidative damage in the cornea. The gene is located within the Smith-Magenis syndrome region on chromosome 17. Multiple alternatively spliced variants, encoding the same protein, have been identified.

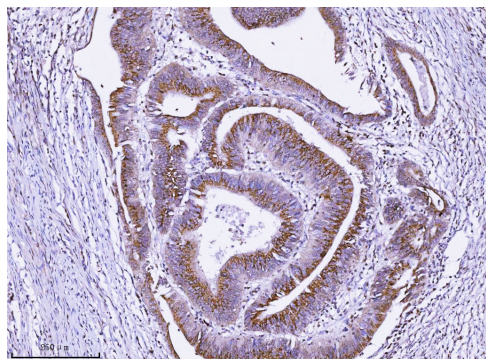
## Selected Validation Data



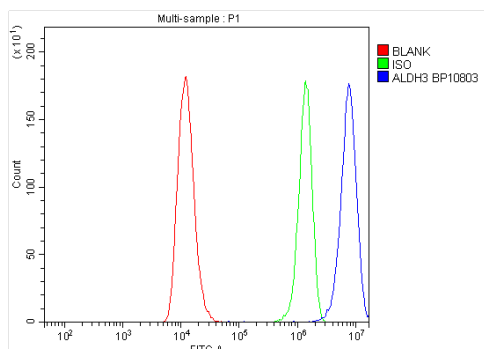
Western blot analysis of ALDH3A1 using anti-ALDH3A1 antibody (A01121-5). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: A549 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-ALDH3A1 antigen affinity purified polyclonal antibody (A01121-5) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for ALDH3A1 at approximately 55 kDa. The expected band size for ALDH3A1 is at 50 kDa.



IHC analysis of ALDH3A1 using anti-ALDH3A1 antibody (A01121-5). ALDH3A1 was detected in a paraffin-embedded section of human rectal tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-ALDH3A1 Antibody (A01121-5) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of RT4 cells using anti-ALDH3A1 antibody (A01121-5).

Overlay histogram showing RT4 cells stained with A01121-5 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ALDH3A1 Antibody (A01121-5) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary

Product datasheet

## Anti-ALDH3A1 Antibody

Catalog Number: **A01121-5**



antibody and ELISA experts

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antibody and secondary antibody (Red line) was used as a blank control.