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ALDH3A1 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7849A

Specification

ALDH3A1 Antibody (N-term) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	P30838
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**50395**
Antigen Region	**69-99**

ALDH3A1 Antibody (N-term) - Additional Information

Gene ID 218

Other Names
Aldehyde dehydrogenase, dimeric NADP-preferring, ALDHIII, Aldehyde dehydrogenase 3, Aldehyde dehydrogenase family 3 member A1, ALDH3A1, ALDH3

Target/Specificity
This ALDH3A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 69-99 amino acids from the N-terminal region of human ALDH3A1.

Dilution
WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ALDH3A1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ALDH3A1 Antibody (N-term) - Protein Information

Name ALDH3A1

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Synonyms ALDH3

Function ALDHs play a major role in the detoxification of alcohol- derived acetaldehyde (Probable). They are involved in the metabolism of corticosteroids, biogenic amines, neurotransmitters, and lipid peroxidation (Probable). Oxidizes medium and long chain aldehydes into non-toxic fatty acids (PubMed:1737758). Preferentially oxidizes aromatic aldehyde substrates (PubMed:1737758). Comprises about 50 percent of corneal epithelial soluble proteins (By similarity). May play a role in preventing corneal damage caused by ultraviolet light (By similarity).

Cellular Location
Cytoplasm {ECO:0000250|UniProtKB:P47739}.

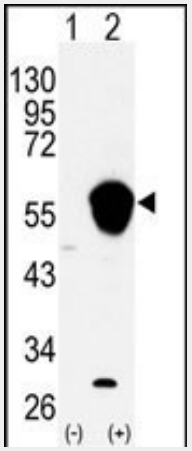
Tissue Location
High levels in stomach, esophagus and lung; low level in the liver and kidney

ALDH3A1 Antibody (N-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ALDH3A1 Antibody (N-term) - Images



Western blot analysis of ALDH3A1 (arrow) using rabbit polyclonal ALDH3A1 Antibody (N-term) (Cat.#AP7849a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the ALDH3A1 gene (Lane 2) (Origene Technologies).

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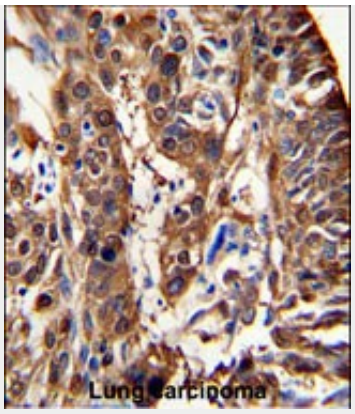
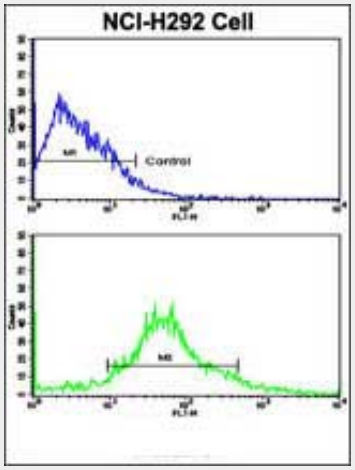


Formalin-fixed and paraffin-embedded human lung carcinoma reacted with ALDH3A1 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of NCI-H292 cells using ALDH3A1 Antibody (N-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ALDH3A1 Antibody (N-term) - Background

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. ALDH3A1 forms a cytoplasmic homodimer that preferentially oxidizes aromatic and medium-chain (6 carbons or more) saturated and unsaturated aldehyde substrates. The enzyme is thought to promote resistance to UV and 4-hydroxy-2-nonenal-induced oxidative damage in the cornea.

ALDH3A1 Antibody (N-term) - References

Glatt,H., Arch. Biochem. Biophys. 477 (2), 196-205 (2008)
Ekhart,C., Pharmacogenet. Genomics 18 (6), 515-523 (2008)
Giebultowicz,J., Acta Pol Pharm 65 (1), 81-84 (2008)