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ALDH2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1432a

Specification

ALDH2 Antibody (N-term) - Product Information

Application	**IF, WB,E**
Primary Accession	P05091
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**52-81**

ALDH2 Antibody (N-term) - Additional Information

Gene ID 217

Other Names
Aldehyde dehydrogenase, mitochondrial, ALDH class 2, ALDH-E2, ALDHI, ALDH2, ALDM

Target/Specificity
This ALDH2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 52-81 amino acids from the N-terminal region of human ALDH2.

Dilution
IF~~1:10~50
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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
ALDH2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ALDH2 Antibody (N-term) - Protein Information

Name ALDH2

Synonyms ALDM

Function Required for clearance of cellular formaldehyde, a cytotoxic and carcinogenic

metabolite that induces DNA damage.

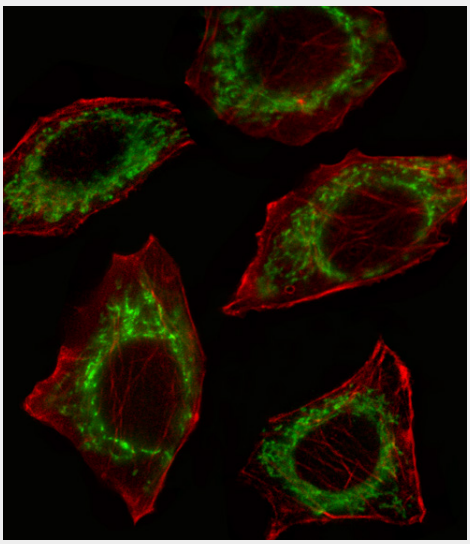
Cellular Location
Mitochondrion matrix.

ALDH2 Antibody (N-term) - Protocols

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

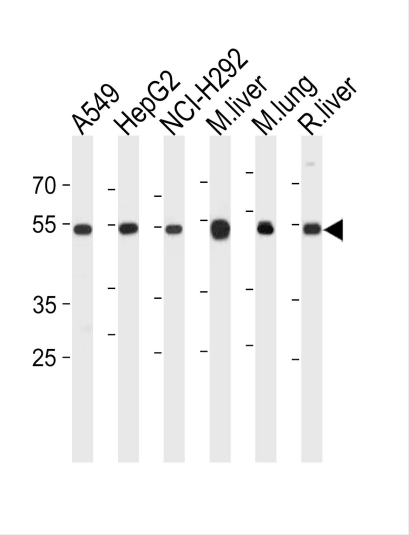
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ALDH2 Antibody (N-term) - Images



Fluorescent confocal image of A549 cell stained with ALDH2 Antibody (N-term)(Cat#AP1432a).A549 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with ALDH2 primary antibody (1:25, 1 h at 37℃). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37℃).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37℃). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min).ALDH2 immunoreactivity is localized to Mitochondrion significantly.

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ALDH2 Antibody (N-term) (Cat. #AP1432a) western blot analysis in A549,HepG2,NCI-H292 cell line,mouse liver,lung and rat liver tissue lysates (35ug/lane).This demonstrates the ALDH2 antibody detected the ALDH2 protein (arrow).

ALDH2 Antibody (N-term) - Background

ALDH2 belongs to the aldehyde dehydrogenase family of proteins. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Two major liver isoforms of this enzyme, cytosolic and mitochondrial, can be distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations. Most Caucasians have two major isozymes, while approximately 50% of Asians have only the cytosolic isozyme, missing the mitochondrial isozyme. A remarkably higher frequency of acute alcohol intoxication among Asians than among Caucasians could be related to the absence of the mitochondrial isozyme.

ALDH2 Antibody (N-term) - References

Guo,Y.M., World J. Gastroenterol. 14 (9), 1444-1449 (2008) Chen,L., PLoS Med. 5 (3), E52 (2008) Teeguarden,J.G., Inhal Toxicol 20 (4), 375-390 (2008) Yoshida,A., Pharmacogenetics 2 (4), 139-147 (1992)

ALDH2 Antibody (N-term) - Citations

- Mitochondrial aldehyde dehydrogenase 2 protects gastric mucosa cells against DNA damage caused by oxidative stress.