

**ALDH2 Antibody (NT)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV11299****Specification**

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**ALDH2 Antibody (NT) - Product Information**

Application	IF, WB
Primary Accession	<a href="#">P05091</a>
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	56381

**ALDH2 Antibody (NT) - Additional Information****Gene ID 217**

Positive Control	Western blot: A549, HepG2 and NCI-H92 cell lysates and mouse liver and lung and rat liver tissue lysates , IF: A549 cells.
Application & Usage	Western blot: ~1:1000, IF: ~1:10-1:50.

**Other Names**

ALDH2; ALDM; Aldehyde dehydrogenase, mitochondrial; ALDH class 2; ALDH-E2; ALDH1.

**Target/Specificity**

ALDH2

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µl of antibody in PBS with 0.09% (W/V) sodium azide

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

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

## ALDH2 Antibody (NT) - Protein Information

**Name** ALDH2

**Synonyms** ALDM

### Function

Required for clearance of cellular formaldehyde, a cytotoxic and carcinogenic metabolite that induces DNA damage.

### Cellular Location

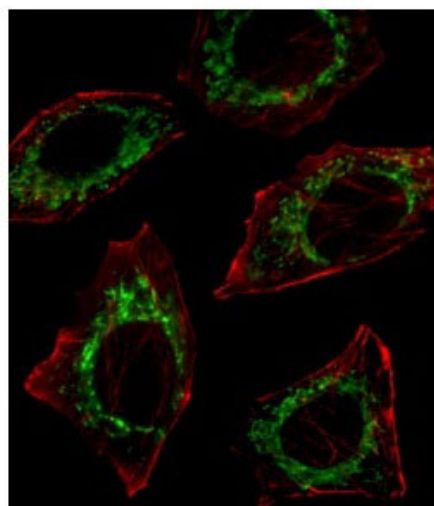
Mitochondrion matrix.

## ALDH2 Antibody (NT) - Protocols

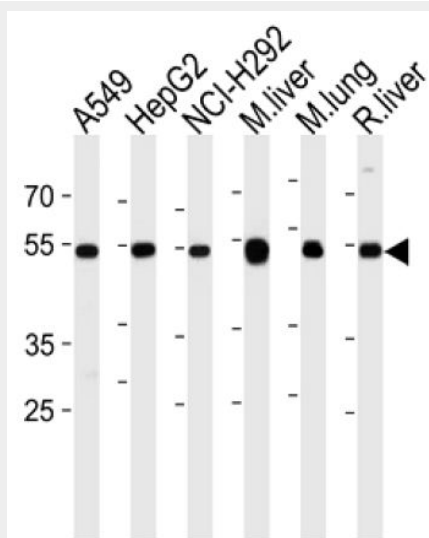
Provided below are standard protocols that you may find useful for product applications.

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

## ALDH2 Antibody (NT) - Images



Fluorescent confocal image of A549 cell stained with ALDH2 Antibody (N-term). 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°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7 units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min). ALDH2 immunoreactivity is localized to Mitochondrion significantly.



Western blot analysis in A549, HepG2 and NCI-H292 cell lysates and mouse liver and lung and rat liver tissue lysates (35 µg/lane).

#### ALDH2 Antibody (NT) - Background

ALDH2 (Aldehyde dehydrogenase 2 family) belongs to the aldehyde dehydrogenase family which catalyze the chemical transformation from acetaldehyde to acetic acid and is the second enzyme of the major oxidative pathway of alcohol metabolism. Aldehyde dehydrogenases (ALDHs) mediate NADP<sup>+</sup>-dependent oxidation of aldehydes into acids during detoxification of alcohol-derived acetaldehyde; lipid peroxidation; and metabolism of corticosteroids, biogenic amines and neurotransmitters. ALDH1A1, also designated retinal dehydrogenase 1 (RALDH1 or RALDH1); aldehyde dehydrogenase family 1 member A1; aldehyde dehydrogenase cytosolic; ALDHIII; ALDH-E1 or ALDH E1, is a retinal dehydrogenase that participates in the biosynthesis of retinoic acid (RA). The major liver isoform ALDH1 localizes to cytosolic space, while ALDH2 localizes to the mitochondria. The ALDH1A2 (RALDH2, RALDH2-T) gene produces three different transcripts and also catalyzes the synthesis of RA from retinaldehyde. ALDH2 is present in most Caucasians, yet is absent in 50% of Asians. The absence of this enzyme has been linked to alcohol intolerance; and thusly, a reduced risk for alcoholism-related liver disease.