

# ALDH2 Antibody (NT)

**ALTERNATE NAMES:** ALDH2; ALDM; Aldehyde dehydrogenase, mitochondrial; ALDH class 2; ALDH-E2; ALDHI.

**CATALOG #:** 6749-100

**AMOUNT:** 100 µl

**HOST/ISOTYPE:** Rabbit IgG

**IMMUNOGEN:** 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.

**PURIFICATION:** This antibody is purified through a protein A column, followed by peptide affinity purification.

**MOLECULAR WEIGHT:** ~56.38 kDa

**FORM:** Liquid

**FORMULATION:** Supplied in PBS with 0.09% (W/V) sodium azide.

**SPECIES REACTIVITY:** Human mouse and rat.

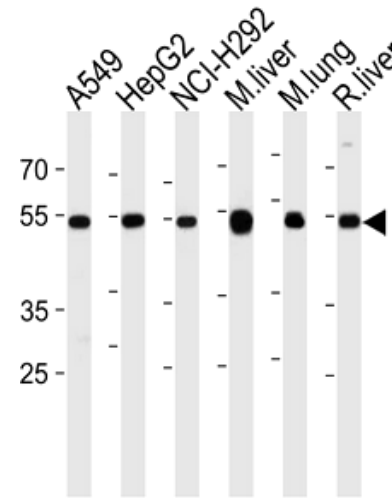
**STORAGE CONDITIONS:** Maintain refrigerated at 2-8°C for up to 6 months. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.

**DESCRIPTION:** 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+-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; ALDHII; 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.

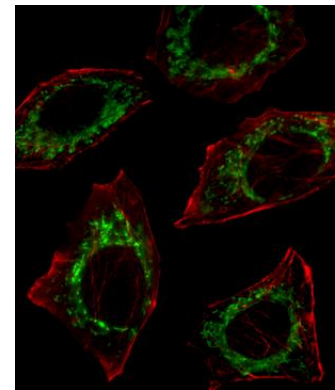
**APPLICATION:** Western blot: ~1:1000, IF: ~1:10-1:50.

**Note:** This information is only intended as a guide. The optimal dilutions must be determined by the user.

**FOR RESEARCH USE ONLY! Not to be used on humans.**



Western blot analysis in A549, HepG2 and NCI-H92 cell lysates and mouse liver and lung and rat liver tissue lysates (35 µg/lane).



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.

**RELATED PRODUCTS:**

- Human Recombinant ALDH2 (Cat. No. 6332-100)
- Human Recombinant ALDH3A1 (Cat. No. 6333-100)
- ALDH2 Antibody (Clone # 138CT22.3.8) (Cat. No. 6746-100)
- ALDH2 Antibody (Cat. No. 6747-100)
- ALDH2 Antibody (Center) (Cat. No. 6748-100)
- ALDH5A1 Antibody (Cat. No. 6750-100)
- ALDH5A1 Antibody (CT) (Cat. No. 6751-100)
- ALDH5A1 Antibody (NT) (Cat. No. 6752-100)
- Aldehyde Dehydrogenase Activity Colorimetric Assay Kit (Cat. No. K731-100)
- PicoProbe™ Aldehyde Dehydrogenase Activity Fluorometric Assay Kit (Cat. No. K741-100)

