

ALDH2 Antibody (Clone # 138CT22.3.8)

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

CATALOG #: 6746-100

AMOUNT: 100 µl

HOST/ISOTYPE: Mouse IgG1

IMMUNOGEN: This ALDH2 Monoclonal antibody is generated from mouse immunized with ALDH2 recombinant protein.

PURIFICATION: This antibody is purified through a protein G column, followed by dialysis against PBS.

MOLECULAR WEIGHT: ~56.38 kDa

FORM: Liquid

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

SPECIES REACTIVITY: Human.

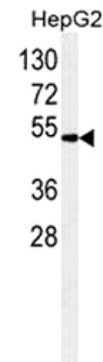
STORAGE CONDITIONS: Maintain refrigerated at 2-8°C for up to 6 months. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.

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; 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.

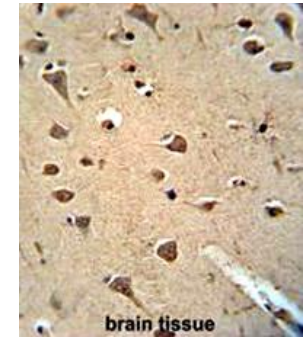
APPLICATION: Western blot: ~1:1000, IHC: ~1:50-1:100, FACS: ~1:10-1:50, IF: ~1:10-1:50.

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

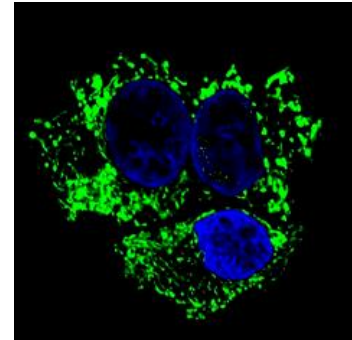
FOR RESEARCH USE ONLY! Not to be used on humans.



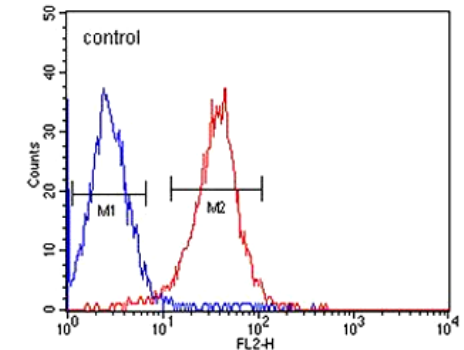
Western blot analysis in HepG2 cell lysates (35 µg/lane).



Formalin-fixed and paraffin-embedded human brain tissue reacted with ALDH2 antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining.



Confocal immunofluorescent analysis with HepG2 cells followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



FACS analysis with HepG2 (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies was used for the analysis.

RELATED PRODUCTS:

- Human Recombinant ALDH2 (Cat. No. 6332-100)
- Human Recombinant ALDH3A1 (Cat. No. 6333-100)
- ALDH2 Antibody (Cat. No. 6747-100)
- ALDH2 Antibody (Center) (Cat. No. 6748-100)
- ALDH2 Antibody (NT) (Cat. No. 6749-100)
- 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)