

Anti-ALDH2 Antibody

R1407-3



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell
Molecular Wt:	Predicted band size: 56 kDa

Description: Aldehyde dehydrogenase, mitochondrial is an enzyme that in humans is encoded by the ALDH2 gene located on chromosome 12. This protein belongs to the aldehyde dehydrogenase family of enzymes. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Two major liver isoforms of aldehyde dehydrogenase, cytosolic and mitochondrial, can be distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations. Mitochondrial aldehyde dehydrogenase belongs to the aldehyde dehydrogenase family of enzymes that catalyze the chemical transformation from acetaldehyde to acetic acid. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Additionally, ALDH2 functions as a protector against oxidative stress.

Immunogen: Synthetic peptide within human ALDH2 aa 18-80.

Positive control: HeLa cell lysate, HepG2 cell lysate, SK-Br-3 cell lysate, THP-1 cell lysate, human liver tissue lysate, rat lung tissue lysate, Hela, HepG2.

Subcellular location: Mitochondrion matrix.

Database links: SwissProt: P05091 Human | P47738 Mouse | P11884 Rat

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:200

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

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Orders:0086-571-88062880

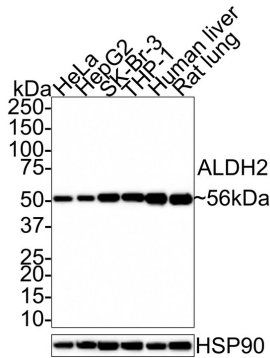
Technical:0086-571-89986345

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Images

Fig1: Western blot analysis of ALDH2 on different lysates with Rabbit anti-ALDH2 antibody (R1407-3) at 1/1,000 dilution.



Lane 1: HeLa cell lysate (15 µg/Lane)
 Lane 2: HepG2 cell lysate (15 µg/Lane)
 Lane 3: SK-Br-3 cell lysate (15 µg/Lane)
 Lane 4: THP-1 cell lysate (15 µg/Lane)
 Lane 5: Human liver tissue lysate (30 µg/Lane)
 Lane 6: Rat lung tissue lysate (30 µg/Lane)

Predicted band size: 56 kDa
 Observed band size: 56 kDa

Exposure time: 20 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (R1407-3) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

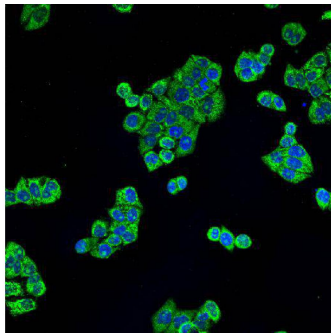


Fig2: ICC staining ALDH2 in HeLa cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS and counterstained with DAPI in order to highlight the nucleus (blue).

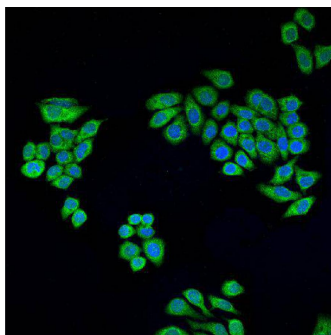


Fig3: ICC staining ALDH2 in HepG2 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS and counterstained with DAPI in order to highlight the nucleus (blue).

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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. "Mitochondrial aldehyde dehydrogenase polymorphism in Asian and American Indian populations: detection of new ALDH2 alleles." Novoradovsky A., Tsai S.J., Goldfarb L., Peterson R., Long J.C., Goldman D. Alcohol. Clin. Exp. Res. 19:1105-1110(1995)
2. "An enzyme assisted RP-RPLC approach for in-depth analysis of human liver phosphoproteome." Bian Y., Song C., Cheng K., Dong M., Wang F., Huang J., Sun D., Wang L., Ye M., Zou H. J. Proteomics 96:253-262(2014)

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