

PRODUCT DATA SHEET

Bioworld Technology,Inc.

ALDH2 monoclonal antibody

Catalog: MB66802 Host: Mouse Reactivity: Human

BackGround:

Aldehyde dehydrogenases (ALDHs) mediate NADP+-dependent oxidation of aldehydes into acids during the detoxification of alcohol-derived acetaldehyde; metabolism of corticosteroids, biogenic amines and neurotransmitters; and lipid peroxidation. 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.

Product:

Mouse IgG1 kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 52 kDa

Swiss-Prot:

P05091

Purification&Purity:

This antibody is purified through a protein G column.

Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/200), IF/ICC (1/10 - 1/50), FC (1/10 - 1/50)

Storage&Stability:

Store at $4 \,\mathrm{C}$ short term. Aliquot and store at $-20 \,\mathrm{C}$ long term. Avoid freeze-thaw cycles.

Specificity:

Recognizes endogenous levels of ALDH2 protein.

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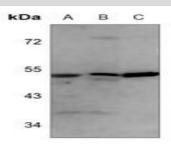
Add: 1660 South Highway 100, Suite 500 St. Louis Park,

MN 55416,USA.

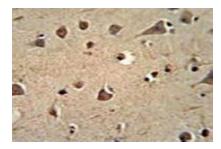
Email: <u>info@bioworlde.com</u>

Tel: 6123263284 Fax: 6122933841

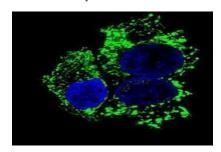
DATA:



Western blot analysis of ALDH2 expression in NCIH292 (A), A549 (B), HepG2 (C) whole cell lysates.



Immunohistochemical analysis of ALDH2 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of ALDH2 staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 $\,^{\circ}$ C in a humidified chamber.

Bioworld technology, co. Ltd.

Add: No 9, weidi road Qixia District Nanjing, 210046,

P. R. China.

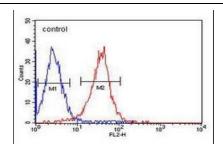
Email: info@biogot.com
Tel: 0086-025-68037686
Fax: 0086-025-68035151



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Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).



Note:

For research use only, not for use in diagnostic procedure.

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