

ALDH1L2 (P-16): sc-244886

BACKGROUND

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. ALDH1L2 (aldehyde dehydrogenase 1 family, member L2), also known as probable 10-formyltetrahydrofolate dehydrogenase ALDH1L2 or mtFDH (mitochondrial 10-formyltetrahydrofolate dehydrogenase), is a 923 amino acid protein belonging to the aldehyde dehydrogenase family and the ALDH1L subfamily. Encoded by a gene that maps to human chromosome 12q23.3, ALDH1L2 is composed of twenty-three exons, contains one acyl carrier domain and exists as three alternatively spliced isoforms. ALDH1L2 participates in acyl carrier activity, cofactor binding, formyltetrahydrofolate dehydrogenase functions, transferase activities and phosphopantetheine binding.

REFERENCES

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- Sherva, R., et al. 2009. Associations and interactions between SNPs in the alcohol metabolizing genes and alcoholism phenotypes in European Americans. *Alcohol. Clin. Exp. Res.* 33: 848-857.
- Black, W.J., et al. 2009. Human aldehyde dehydrogenase genes: alternatively spliced transcriptional variants and their suggested nomenclature. *Pharmacogenet. Genomics* 19: 893-902.
- Wang, L.L., et al. 2010. Phenotype prediction of deleterious nonsynonymous single nucleotide polymorphisms in human alcohol metabolism-related genes: a bioinformatics study. *Alcohol* 44: 425-438.
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- Krupenko, N.I., et al. 2010. ALDH1L2 is the mitochondrial homolog of 10-formyltetrahydrofolate dehydrogenase. *J. Biol. Chem.* 285: 23056-23063.

CHROMOSOMAL LOCATION

Genetic locus: ALDH1L2 (human) mapping to 12q23.3; Aldh1l2 (mouse) mapping to 10 C1.

SOURCE

ALDH1L2 (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ALDH1L2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-244886 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ALDH1L2 (P-16) is recommended for detection of ALDH1L2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with ALDH1L1.

ALDH1L2 (P-16) is also recommended for detection of ALDH1L2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ALDH1L2 siRNA (h): sc-96049, ALDH1L2 siRNA (m): sc-141001, ALDH1L2 shRNA Plasmid (h): sc-96049-SH, ALDH1L2 shRNA Plasmid (m): sc-141001-SH, ALDH1L2 shRNA (h) Lentiviral Particles: sc-96049-V and ALDH1L2 shRNA (m) Lentiviral Particles: sc-141001-V.

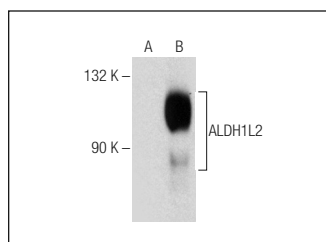
Molecular Weight of ALDH1L2: 102 kDa.

Positive Controls: ALDH1L2 (m): 293T Lysate: sc-118341.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotting A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ALDH1L2 (P-16): sc-244886. Western blot analysis of ALDH1L2 expression in non-transfected: sc-117752 (A) and mouse ALDH1L2 transfected: sc-118341 (B) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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