

ALDH2 (N-14): sc-48838

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. 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.

CHROMOSOMAL LOCATION

Genetic locus: ALDH2 (human) mapping to 12q24.12; Aldh2 (mouse) mapping to 5 F.

SOURCE

ALDH2 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ALDH2 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-48838 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ALDH2 (N-14) is recommended for detection of ALDH2 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ALDH2 (N-14) is also recommended for detection of ALDH2 in additional species, including equine and porcine.

Suitable for use as control antibody for ALDH2 siRNA (h): sc-60147, ALDH2 siRNA (m): sc-60148, ALDH2 shRNA Plasmid (h): sc-60147-SH, ALDH2 shRNA Plasmid (m): sc-60148-SH, ALDH2 shRNA (h) Lentiviral Particles: sc-60147-V and ALDH2 shRNA (m) Lentiviral Particles: sc-60148-V.

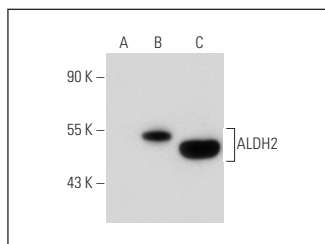
Molecular Weight of ALDH2: 52.6 kDa.

Positive Controls: ALDH2 (h): 293T Lysate: sc-158255, mouse lung extract: sc-2390 or rat liver extract: sc-2395.

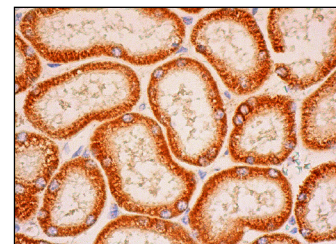
RECOMMENDED SECONDARY REAGENTS

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 Blotto 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



ALDH2 (N-14): sc-48838. Western blot analysis of ALDH2 expression in non-transfected: sc-110760 (A) and human ALDH2 transfected: sc-158255 (B) 293 whole cell lysates and rat liver tissue extract (C).



ALDH2 (N-14): sc-48838. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **ALDH2 (3D12): sc-100496**, our highly recommended monoclonal alternative to ALDH2 (N-14).