

ADH (N-19): sc-22865

BACKGROUND

The alcohol dehydrogenase family of proteins metabolize a wide variety of substrates, including ethanol, retinol, other aliphatic alcohols, hydroxysteroids, and lipid peroxidation products. Class I alcohol dehydrogenase, consisting of several homo- and heterodimers of α , β , and γ subunits, exhibits high activity for ethanol oxidation and plays a major role in ethanol catabolism. Three genes encoding α (ADH1A), β (ADH1B) and γ (ADH1C) subunits are tandemly organized on chromosome 4q22 as a gene cluster. The α form of ADH is monomeric and predominant in fetal and infant livers, becoming less active in gestation and only weakly active during adulthood. The genes encoding β and γ subunits, however, are polymorphic and strongly expressed in adult livers. With the coenzyme NAD, ADH catalyzes the reversible conversion of organic alcohols to ketones or aldehydes. The physiologic function for ADH in the liver is the removal of ethanol formed by microorganisms in the intestinal tract.

CHROMOSOMAL LOCATION

Genetic locus: ADH1A/ ADH1B/ ADH1C,/ADH4 (human) mapping to 4q23; Adh1 (mouse) mapping to 3 G3.

SOURCE

ADH (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ADH of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-22865 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ADH (N-19) is recommended for detection of ADH α , ADH β and ADH γ of human origin and ADH1 of mouse and rat origin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

ADH (N-19) is also recommended for detection of ADH α , ADH β and ADH γ of human origin and ADH1 of mouse and rat origin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Adh1 siRNA (m): sc-41437, Adh1 shRNA Plasmid (m): sc-41437-SH and Adh1 shRNA (m) Lentiviral Particles: sc-41437-V.

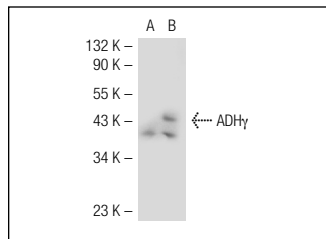
Molecular Weight of ADH: 46 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or ADH γ (h): 293T Lysate: sc-111481.

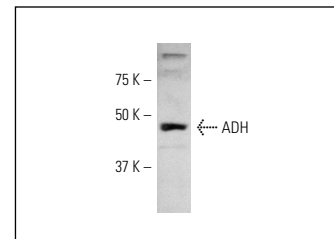
RECOMMENDED SECONDARY REAGENTS

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.

DATA



ADH (N-19): sc-22865. Western blot analysis of ADH γ expression in non-transfected: sc-117752 (A) and human ADH γ transfected: sc-111481 (B) 293T whole cell lysates.



ADH (N-19): sc-22865. Western blot analysis of ADH expression in Hep G2 whole cell lysate.

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.

PROTOCOLS

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



Try **ADH (G-7): sc-133207** or **ADH (B-12): sc-137078**, our highly recommended monoclonal alternatives to ADH (N-19).