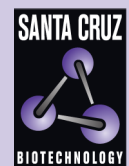


# ADH5 (B-1): sc-518202



The Power to Question

## BACKGROUND

The alcohol dehydrogenase family of proteins metabolize a wide variety of substrates, including retinol, hydroxysteroids, ethanol, aliphatic alcohols and lipid peroxidation products. ADH5 (alcohol dehydrogenase 5 (class III)), also known as FDH (formaldehyde dehydrogenase), ADHX, ADH-3 or GSNOR, is a 374 amino acid cytoplasmic protein that belongs to the class III subfamily of alcohol dehydrogenases. Expressed ubiquitously, ADH5 uses iron as a cofactor to catalytically oxidize both long-chain primary alcohols and S-hydroxymethylglutathione, a product formed spontaneously between formaldehyde and glutathione. ADH5 exists as a homodimer and, via its ability to oxidize S-hydroxymethylglutathione and, thus, eliminate formaldehyde, functions as an important component of cellular metabolism. Genetic variations in the gene encoding ADH5 may affect drug and alcohol dependence in humans.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: ADH5 (human) mapping to 4q23.

## SOURCE

ADH5 (B-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 322-347 of ADH5 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

ADH5 (B-1) is recommended for detection of ADH5 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for ADH5 siRNA (h): sc-105044, ADH5 shRNA Plasmid (h): sc-105044-SH and ADH5 shRNA (h) Lentiviral Particles: sc-105044-V.

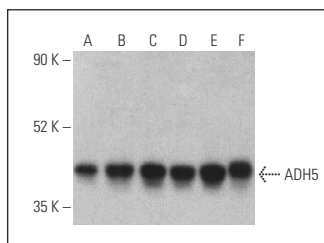
Molecular Weight of ADH5: 40 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, SH-SY5Y cell lysate: sc-3812 or Hep G2 cell lysate: sc-2227.

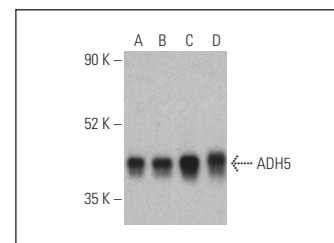
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



ADH5 (B-1): sc-518202. Western blot analysis of ADH5 expression in IMR-32 (A), U-937 (B), K-562 (C), SH-SY5Y (D), Hep G2 (E) and Caki-1 (F) whole cell lysates. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



ADH5 (B-1): sc-518202. Western blot analysis of ADH5 expression in K-562 (A), SH-SY5Y (B), Hep G2 (C) and Caki-1 (D) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

## 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.