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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

ADH5 (B-1): sc-518202

SANTA CRUZ BIOTECHNOLOGY
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-hydroxymethyl-glutathione, a product formed spontaneously between formaldehyde and glutathione. ADH5 exists as a homodimer and, via its ability to oxidize S-hydroxymethyl-glutathione 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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2. Giri, P.R., et al. 1989. Cloning and comparative mapping of a human class III (chi) alcohol dehydrogenase cDNA. Biochem. Biophys. Res. Commun. 164: 453-460.
3. Hur, M.W. and Edenberg, H.J. 1992. Cloning and characterization of the ADH5 gene encoding human alcohol dehydrogenase 5, formaldehyde dehydrogenase. Gene 121: 305-311.
4. Holmquist, B., et al. 1993. Role of arginine 115 in fatty acid activation and formaldehyde dehydrogenase activity of human class III alcohol dehydrogenase. Biochemistry 32: 5139-5144.
5. Engeland, K., et al. 1993. Mutation of Arg-115 of human class III alcohol dehydrogenase: a binding site required for formaldehyde dehydrogenase activity and fatty acid activation. Proc. Natl. Acad. Sci. USA 90: 2491-2494.
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8. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 103710. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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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_1 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.

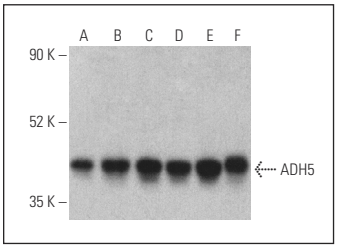
Molecular Weight of ADH5: 40 kDa.

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

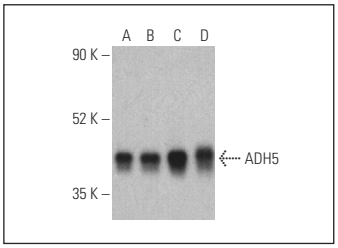
RECOMMENDED SUPPORT REAGENTS

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.