## SANTA CRUZ BIOTECHNOLOGY, INC.

# ADH6 (T-16): sc-70204



## BACKGROUND

ADH6 (alcohol dehydrogenase 6), also known as ADH-5, is a 368 amino acid member of the class V zinc-containing alcohol dehydrogenase family. This family of enzymes functions to metabolize a wide variety of substrates such as retinol, hydroxysteroids, ethanol, aliphatic alcohols and lipid peroxidation products. Localized to the cytoplasm and expressed in the stomach and liver, ADH6 catalyzes the reversible oxidation of alcohols to their corresponding aldehydes or ketones and is able to bind two zinc ions as cofactors. ADH6 contains a glucocorticoid response element upstream of its 5' UTR which is thought to be a steroid binding site, suggesting that expression of ADH6 may be under hormonal control. Multiple isoforms of ADH6 exist due to alternative splicing events.

#### REFERENCES

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- Höög, J., et al. 2001. Mammalian alcohol dehydrogenase of higher classes: analyses of human ADH5 and rat ADH6. Chem. Biol. Interact. 130-132: 395-404.
- Osier, M.V., et al. 2002. A global perspective on genetic variation at the ADH genes reveals unusual patterns of linkage disequilibrium and diversity. Am. J. Hum. Genet. 71: 84-99.
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- 7. Luo, X., et al. 2006. Diplotype trend regression analysis of the ADH gene cluster and the ALDH2 gene: multiple significant associations with alcohol dependence. Am. J. Hum. Genet. 78: 973-987.
- 8. Luo, X., et al. 2007. Multiple ADH genes modulate risk for drug dependence in both African- and European-Americans. Hum. Mol. Genet. 16: 380-390.

#### CHROMOSOMAL LOCATION

Genetic locus: Adh6 (rat) mapping to 2q44.

#### SOURCE

ADH6 (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADH6 of rat origin.

## **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-70204 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

ADH6 (T-16) is recommended for detection of ADH6 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

Molecular Weight of ADH6: 39 kDa.

#### **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.

## **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.