

ADH1 Antibody

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For Research Use Only. Not For Use In Diagnostic Procedures.

Applications W Endogenous	Species Cross-Reactivity*		Molecular Wt. 40 kDa	Source Rabbit**
	H, M			

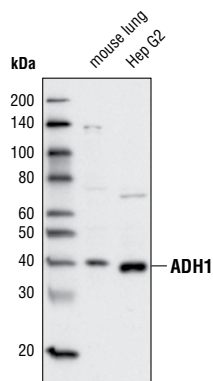
Background: Human alcohol dehydrogenase (*ADH*) genes are grouped five classes, with three distinct class I *ADH* genes (*ADH1A*, *ADH1B* and *ADH1C*) and *ADH4*, *ADH5*, *ADH7* and *ADH6* belonging to classes II, III, IV, and V, respectively. ADH is a zinc-containing, dimeric enzyme that catalyzes the conversion of cytosolic alcohol to acetaldehyde in the liver with the coenzyme NAD (1). *ADH1A* is monomeric and is the predominant fetal and neonatal liver ADH enzyme. In contrast, polymorphic *ADH1B* and *ADH1C* enzymes are predominant in adult livers (2). Polymorphisms in the human class I *ADH* genes result in functionally variable ADH enzymes; evidence suggests that specific variants may provide protection from the risk of alcoholism (3).

Specificity/Sensitivity: ADH1 Antibody detects endogenous levels of total ADH1 protein. The antigen is 100% conserved between human *ADH1A*, *ADH1B* and *ADH1C* proteins.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val74 of human *ADH1B* protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Edenberg, H.J. (2000) *Prog Nucleic Acid Res Mol Biol* 64, 295-341.
- (2) Su, J.S. et al. (2006) *J Biol Chem* 281, 19809-21.
- (3) Chen, C.C. et al. (1999) *Am J Hum Genet* 65, 795-807.



Western blot analysis of extracts from mouse lung and Hep G2 cells using ADH1 Antibody.

Entrez-Gene ID #125
Swiss-Prot Acc. #P00325

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.