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ADH4 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10128b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P08319
Other Accession	NP_000661.2
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB21606
Calculated MW	40222
Antigen Region	319-348

Additional Information

Gene ID	127
Other Names	Alcohol dehydrogenase 4, Alcohol dehydrogenase class II pi chain, ADH4
Target/Specificity	This ADH4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 319-348 amino acids from the C-terminal region of human ADH4.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ADH4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ADH4 (HGNC:252)
Function	Catalyzes the NAD-dependent oxidation of either all-trans- retinol or 9-cis-retinol (PubMed:17279314). Also oxidizes long chain omega-hydroxy fatty acids, such as 20-HETE, producing both the intermediate aldehyde,

20-oxoarachidonate and the end product, a dicarboxylic acid, (5Z,8Z,11Z,14Z)-eicosatetraenedioate (PubMed:16081420). Also catalyzes the reduction of benzoquinones (PubMed:10514444).

Cellular Location Cytoplasm.

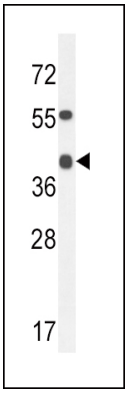
Background

This gene encodes class II alcohol dehydrogenase 4 pi subunit, which is a member of the alcohol dehydrogenase family. Members of this enzyme family metabolize a wide variety of substrates, including ethanol, retinol, other aliphatic alcohols, hydroxysteroids, and lipid peroxidation products. Class II alcohol dehydrogenase is a homodimer composed of 2 pi subunits. It exhibits a high activity for oxidation of long-chain aliphatic alcohols and aromatic alcohols and is less sensitive to pyrazole. This gene is localized to chromosome 4 in the cluster of alcohol dehydrogenase genes.

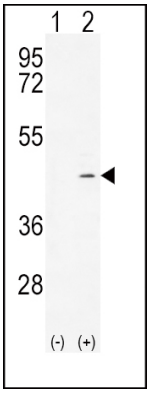
References

Pochareddy, S., et al. Gene 460 (1-2), 1-7 (2010) :
Preuss, U.W., et al. Addict Biol (2010) In press :
Liu, C.Y., et al. Carcinogenesis 31(7):1259-1263(2010)
Rainero, I., et al. Headache 50(1):92-98(2010)
Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :

Images

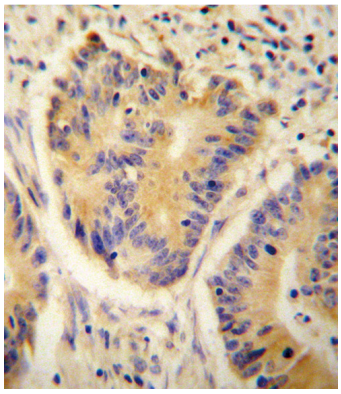


ADH4 Antibody (C-term) (Cat. #AP10128b) western blot analysis in mouse heart tissue lysates (35ug/lane).This demonstrates the ADH4 antibody detected the ADH4 protein (arrow).

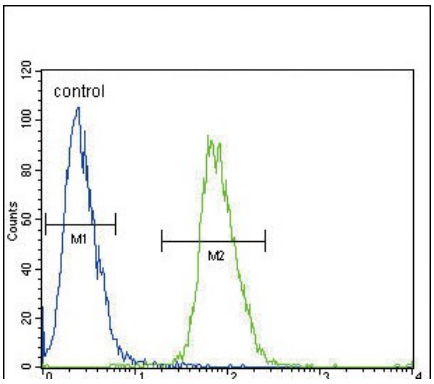


Western blot analysis of ADH4 (arrow) using rabbit polyclonal ADH4 Antibody (C-term) (Cat. #AP10128b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the ADH4 gene.

ADH4 antibody(C-term) (Cat. #AP10128b) immunohistochemistry analysis in formalin fixed and paraffin embedded human colon carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the



ADH4 antibody(C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



ADH4 Antibody (C-term) (Cat. #AP10128b) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Impact of hepatitis C virus and alcohol, alone and combined, on the unfolded protein response in primary human hepatocytes
- Novel roles for AhR and ARNT in the regulation of alcohol dehydrogenases in human hepatic cells.
- Impact of Dyrk1A level on alcohol metabolism.