10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ADH7 Antibody (C-Term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9703b

Product Information

Application	IHC-P, FC, IF, WB, E
Primary Accession	P40394
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22208
Calculated MW	41481
Antigen Region	318-346

Additional Information

Gene ID	131
Other Names	Alcohol dehydrogenase class 4 mu/sigma chain, Alcohol dehydrogenase class IV mu/sigma chain, Gastric alcohol dehydrogenase, Retinol dehydrogenase, ADH7
Target/Specificity	This ADH7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 318-346 amino acids from the C-terminal region of human ADH7.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 IF~~1:10~50 WB~~1:1000 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	ADH7 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ADH7 (HGNC:256)
Function	Catalyzes the NAD-dependent oxidation of all-trans-retinol, alcohol, and omega-hydroxy fatty acids and their derivatives (PubMed:15369820,

PubMed:16787387, PubMed:9600267). Oxidizes preferentially all trans-retinol, all-trans-4-hydroxyretinol, 9-cis- retinol, 2-hexenol, and long chain omega-hydroxy fatty acids such as juniperic acid (PubMed:15369820, PubMed:16787387, PubMed:9600267). In vitro can also catalyze the NADH-dependent reduction of all-trans- retinal and aldehydes and their derivatives (PubMed:15369820, PubMed:16787387, PubMed:9600267). Reduces preferentially all trans- retinal, all-trans-4-oxoretinal and hexanal (PubMed:15369820, PubMed:16787387). Catalyzes in the oxidative direction with higher efficiency (PubMed:15369820, PubMed:16787387). Therefore may participate in retinoid metabolism, fatty acid omega-oxidation, and elimination of cytotoxic aldehydes produced by lipid peroxidation (PubMed:15369820, PubMed:16787387, PubMed:9600267).

Cellular Location Cytoplasm.

Tissue Location Preferentially expressed in stomach.

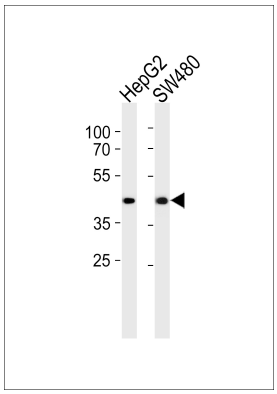
Background

This gene encodes class IV alcohol dehydrogenase 7 mu or sigma subunit, which is a member of the alcohol dehydrogenase family. Members of this family metabolize a wide variety of substrates, including ethanol, retinol, other aliphatic alcohols, hydroxysteroids, and lipid peroxidation products. The enzyme encoded by this gene is inefficient in ethanol oxidation, but is the most active as a retinol dehydrogenase; thus it may participate in the synthesis of retinoic acid, a hormone important for cellular differentiation. The expression of this gene is much more abundant in stomach than liver, thus differing from the other known gene family members.

References

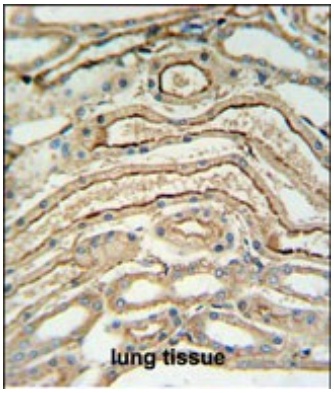
Kedishvili, N.Y., et al. J. Biol. Chem. 270(8):3625-3630(1995)
Cheung, B., et al. Alcohol. Clin. Exp. Res. 19(1):185-186(1995)
Farres, J., et al. Eur. J. Biochem. 224(2):549-557(1994)
Pares, X., et al. FEBS Lett. 303(1):69-72(1992)

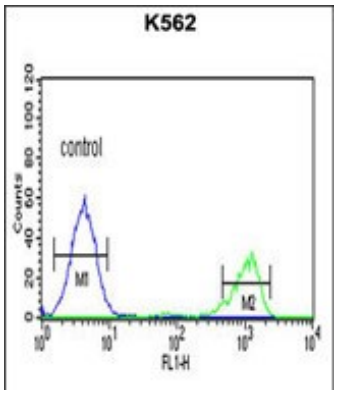
Images



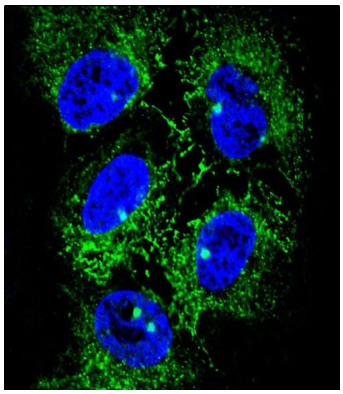
Western blot analysis of lysates from HepG2, SW480 cell line (from left to right), using ADH7 Antibody (C-Term)(Cat. #AP9703b). AP9703b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

ADH7 Antibody (C-Term) (Cat. #AP9703b) IHC analysis in formalin fixed and paraffin embedded lung tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ADH7 Antibody (C-Term) for immunohistochemistry. Clinical relevance has not been evaluated.





ADH7 Antibody (C-Term) (Cat. #AP9703b) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Confocal immunofluorescent analysis of ADH7 Antibody (C-Term) (Cat. #AP9703b) with NCI-H460 cell followed by Alexa Fluor® 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.