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ADH7 Antibody (C-Term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5184

Product Information

Application	IF, FC, IHC-P, WB
Primary Accession	P40394
Reactivity	Mouse, Rat, Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	41481
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	131
Antigen Region	318-346
Other Names	ADH7; Alcohol dehydrogenase class 4 mu/sigma chain; Alcohol dehydrogenase class IV mu/sigma chain; Gastric alcohol dehydrogenase; Retinol dehydrogenase
Dilution	IF~~1:10~50 FC~~1:10~50 IHC-P~~1:100~500 WB~~1:1000
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.
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.

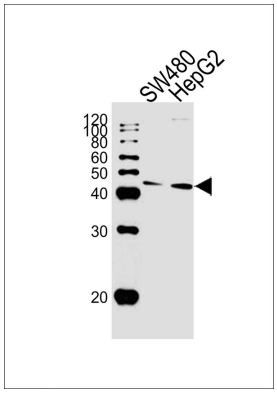
Background

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

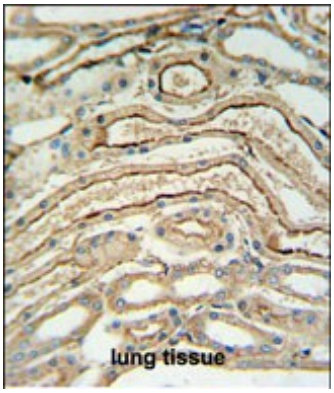
Kedishvili, N.Y., et al. J. Biol. Chem. 270(8):3625-3630(1995)
Cheung, B., et al. Alcohol. Clin. Exp. Res. 19(1):185-186(1995)
Farres, J., et al. Eur. J. Biochem. 224(2):549-557(1994)
Pares, X., et al. FEBS Lett. 303(1):69-72(1992)

Images

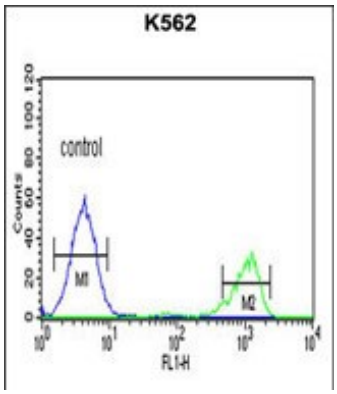


Western blot analysis of lysates from SW480,HepG2 cell line (from left to right), using ADH7 Antibody (C-Term)(Cat. #AW5184). AW5184 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.

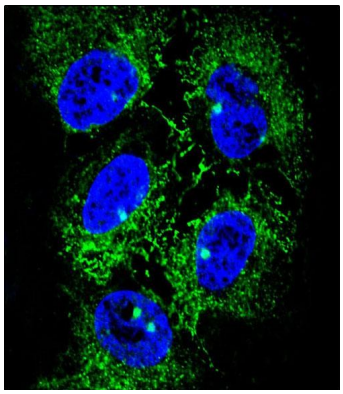
ADH7 Antibody (C-Term) (Cat. #AW5184) IHC analysis in formalin fixed and paraffin embedded lung tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ADH7 Antibody (C-Term) for immunohistochemistry. Clinical relevance has not been



evaluated.



ADH7 Antibody (C-Term) (Cat. #AW5184) 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. #AW5184) 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'.