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ADH7 Polyclonal Antibody

Catalog # AP68317

Product Information

Application	WB
Primary Accession	P40394
Reactivity	Human, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	41481

Additional Information

Gene ID	131
Other Names	ADH7; Alcohol dehydrogenase class 4 mu/sigma chain; Alcohol dehydrogenase class IV mu/sigma chain; Gastric alcohol dehydrogenase; Retinol dehydrogenase
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications.
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

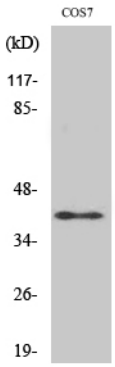
Name	ADH7 (HGNC:256)
Function	Catalyzes the NAD-dependent oxidation of all-trans-retinol, alcohol, and omega-hydroxy fatty acids and their derivatives (PubMed:15369820, PubMed:16787387, PubMed:9600267). Oxidizes preferentially all trans-retinol, all-trans-4-hydroxyretinol, 9-cis- retinol, 2-hexenol, 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

Could function in retinol oxidation for the synthesis of retinoic acid, a hormone important for cellular differentiation. Medium-chain (octanol) and aromatic (m-nitrobenzaldehyde) compounds are the best substrates. Ethanol is not a good substrate but at the high ethanol concentrations reached in the digestive tract, it plays a role in the ethanol oxidation and contributes to the first pass ethanol metabolism.

Images



Western Blot analysis of various cells using ADH7 Polyclonal Antibody