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ALDH1B1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50668

Product Information

Application	WB
Primary Accession	P30837
Host	Rabbit
Clonality	polyclonal
Calculated MW	57249

Additional Information

Gene ID	219
Other Names	Aldehyde dehydrogenase X, mitochondrial, Aldehyde dehydrogenase 5, Aldehyde dehydrogenase family 1 member B1, ALDH1B1, ALDH5, ALDHX
Dilution	WB~~1:1000
Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20℃

Protein Information

Name	ALDH1B1 (HGNC:407)
Function	Broad specificity, mitochondrial aldehyde dehydrogenase that could play a role in the detoxification of alcohol-derived acetaldehyde and other aldehydes (PubMed:20616185, PubMed:25413692, PubMed:35788181). Shows an absolute preference for NAD(+) as no activity is detected with NADP(+) (PubMed:20616185, PubMed:25413692). Has a high affinity and catalytic efficiency toward aliphatic medium- chain saturated aldehydes relative to short-chain and aromatic aldehydes in vitro (PubMed:20616185). Also capable of metabolizing products of lipid peroxidation, namely 4-hydroxynon-2-enal(4-HNE) and malonaldehyde (MDA) but with lower catalytic efficiency (PubMed:20616185). In vitro, it can also display a nitroglycerin reductase activity (PubMed:25413692). Has also an esterase activity in vitro, but this may be not physiologically relevant in vivo (PubMed:20616185).
Cellular Location	Mitochondrion matrix
Tissue Location	Liver, testis and to a lesser extent in brain.

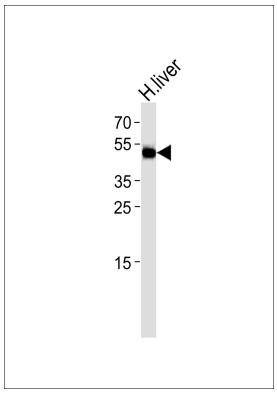
Background

ALDHs play a major role in the detoxification of alcohol-derived acetaldehyde. They are involved in the metabolism of corticosteroids, biogenic amines, neurotransmitters, and lipid peroxidation.

References

Hsu L.C.,et al.J. Biol. Chem. 266:12257-12265(1991).
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Humphray S.J.,et al.Nature 429:369-374(2004).
Burkard T.R.,et al.BMC Syst. Biol. 5:17-17(2011).

Images



Western blot analysis of lysate from human liver tissue lysate,using ALDH1B1 Antibody(AP50668). AP50668 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.

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