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ALDH3B1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8706C

Product Information

Application	WB, IHC-P, E
Primary Accession	P43353
Other Accession	Q5XI42
Reactivity	Human
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22755
Calculated MW	51840
Antigen Region	334-360

Additional Information

Gene ID	221
Other Names	Aldehyde dehydrogenase family 3 member B1, Aldehyde dehydrogenase 7, ALDH3B1, ALDH7
Target/Specificity	This ALDH3B1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 334-360 amino acids from the Central region of human ALDH3B1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	ALDH3B1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ALDH3B1
Synonyms	ALDH7

Function	Oxidizes medium and long chain saturated and unsaturated fatty aldehydes generated in the plasma membrane into non-toxic fatty acids (PubMed:17382292, PubMed:23721920). May have a protective role against the cytotoxicity induced by lipid peroxidation (PubMed:17382292). Short-chain fatty aldehydes are not good substrates (PubMed:17382292). Can use both NADP(+) and NAD(+) as electron acceptor in vitro, however in vivo preference will depend on their tissue levels (PubMed:17382292). Low activity towards acetaldehyde and 3,4- dihydroxyphenylacetaldehyde (PubMed:17382292, PubMed:23721920). Able to metabolize aromatic aldehydes such as benzaldehyde to their acid form (PubMed:17382292).
Cellular Location	Cell membrane; Lipid-anchor. Note=Primarily in the plasma membrane as well as in some punctate structures in the cytoplasm
Tissue Location	Highest expression in kidney and lung.

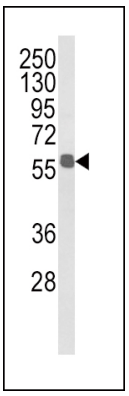
Background

The aldehyde dehydrogenases are a family of isozymes that may play a major role in the detoxification of aldehydes generated by alcohol metabolism and lipid peroxidation.

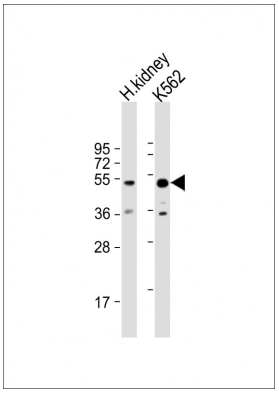
References

Marchitti,S.A., et.al., Biochem. Biophys. Res. Commun. 356 (3), 792-798 (2007)

Images

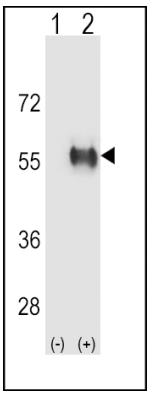


Western blot analysis of ALDH3B1 Antibody (Center) (Cat. #AP8706c) in MDA-MB231 cell line lysates (35ug/lane). ALDH3B1 (arrow) was detected using the purified Pab.



All lanes : Anti-ALDH3B1 Antibody (Center) at 1:1000 dilution Lane 1: human kidney lysate Lane 2: K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 52 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Western blot analysis of ALDH3B1 (arrow) using rabbit polyclonal ALDH3B1 Antibody (Center) (Cat. #AP8706c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the ALDH3B1



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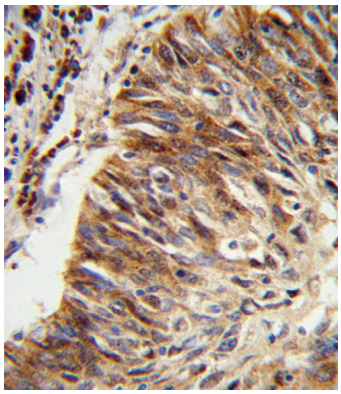

Formalin-fixed and paraffin-embedded human lung carcinoma reacted with ALDH3B1 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Citations

- Aldehyde dehydrogenases contribute to skeletal muscle homeostasis in healthy, aging, and Duchenne muscular dystrophy patients