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ALDH3A1 Rabbit pAb

Catalog # AP99012

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P30838
Other Accession	P30838
Reactivity	Rat, Mouse
Predicted	Pig, Human, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	50395
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ALDH3A1
Epitope Specificity	151-250/453
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the aldehyde dehydrogenase family.
SUBUNIT	Homodimer.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Aldehyde dehydrogenases oxidize various aldehydes to the corresponding acids. They are involved in the detoxification of alcohol-derived acetaldehyde and in the metabolism of corticosteroids, biogenic amines, neurotransmitters, and lipid peroxidation. The enzyme encoded by this gene forms a cytoplasmic homodimer that preferentially oxidizes aromatic and medium-chain (6 carbons or more) saturated and unsaturated aldehyde substrates. It is thought to promote resistance to UV and 4-hydroxy-2-nonenal-induced oxidative damage in the cornea. The gene is located within the Smith-Magenis syndrome region on chromosome 17. Multiple alternatively spliced variants, encoding the same protein, have been identified. [provided by RefSeq, Sep 2008].

Additional Information

Gene ID	218
Other Names	AL3A1_HUMAN; ALDH3A1; ALDHIII; Aldehyde dehydrogenase 3; Aldehyde dehydrogenase family 3 member A1; 1.2.1.5; ALDH3; AL3A1_MOUSE; Aldehyde dehydrogenase 4; Dioxin-inducible aldehyde dehydrogenase 3; Ahd-4; Ahd4; Aldh4; AL3A1_RAT; HTC-ALDH; Tumor-associated aldehyde dehydrogenase; Aldd; aldehyde dehydrogenase 3 family member A1; aldehyde dehydrogenase 3 family, member A1; aldehyde dehydrogenase, dimeric NADP-preferring
	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

Dilution	
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ALDH3A1
Synonyms	ALDH3
Function	ALDHs play a major role in the detoxification of alcohol- derived acetaldehyde (Probable). They are involved in the metabolism of corticosteroids, biogenic amines, neurotransmitters, and lipid peroxidation (Probable). Oxidizes medium and long chain aldehydes into non-toxic fatty acids (PubMed:1737758). Preferentially oxidizes aromatic aldehyde substrates (PubMed:1737758). Comprises about 50 percent of corneal epithelial soluble proteins (By similarity). May play a role in preventing corneal damage caused by ultraviolet light (By similarity).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:P47739}.
Tissue Location	High levels in stomach, esophagus and lung; low level in the liver and kidney

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