

Product datasheet for **CF501105**

ALDH3A1 Mouse Monoclonal Antibody [Clone ID: OT11B6]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OT11B6
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB 1:2000, IHC 1:50, IF 1:100, Flow 1:100
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human ALDH3A1(NP_000682) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	50.2 kDa
Gene Name:	aldehyde dehydrogenase 3 family member A1
Database Link:	NP_000682 Entrez Gene 218 Human P30838



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Background:

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.

Synonyms:

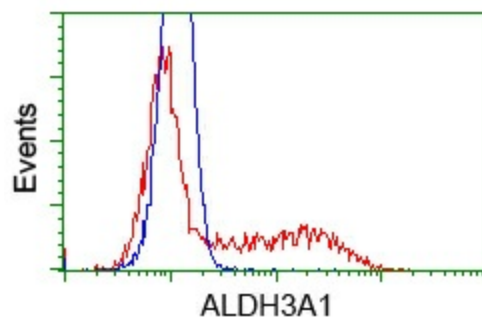
ALDH3; ALDHIII

Protein Families:

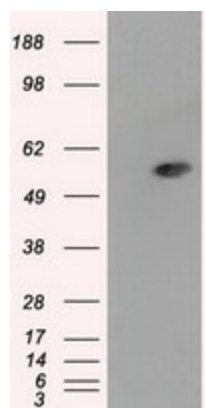
Druggable Genome

Protein Pathways:

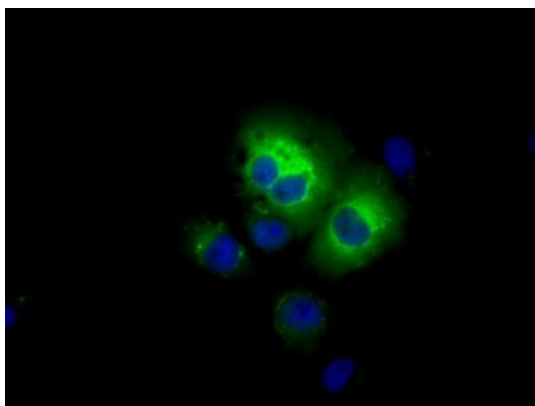
Drug metabolism - cytochrome P450, Glycolysis / Gluconeogenesis, Histidine metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Phenylalanine metabolism, Tyrosine metabolism

Product images:


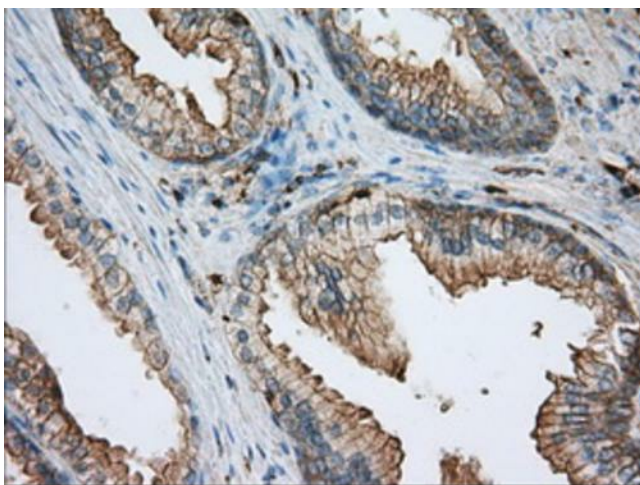
HEK293T cells transfected with either pCMV6-ENTRY ALDH3A1 ([RC202440]) (Red) or empty vector control plasmid (Blue) were immunostained with anti-ALDH3A1 mouse monoclonal ([TA501105]), and then analyzed by flow cytometry.



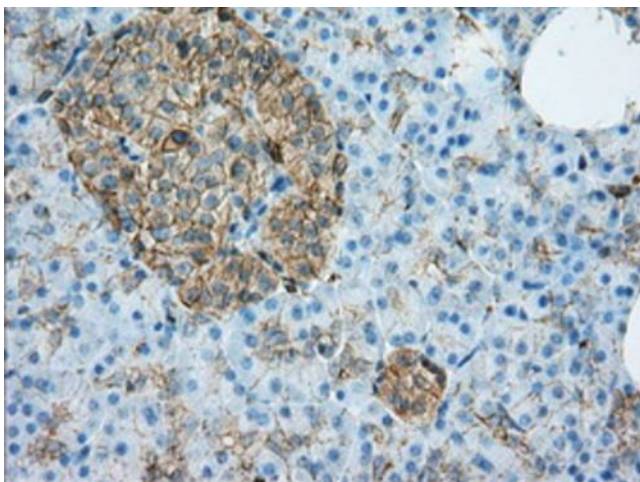
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ALDH3A1 (Cat# [RC202440], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ALDH3A1 (Cat# [TA501105]). Positive lysates [LY400232] (100ug) and [LC400232] (20ug) can be purchased separately from OriGene.



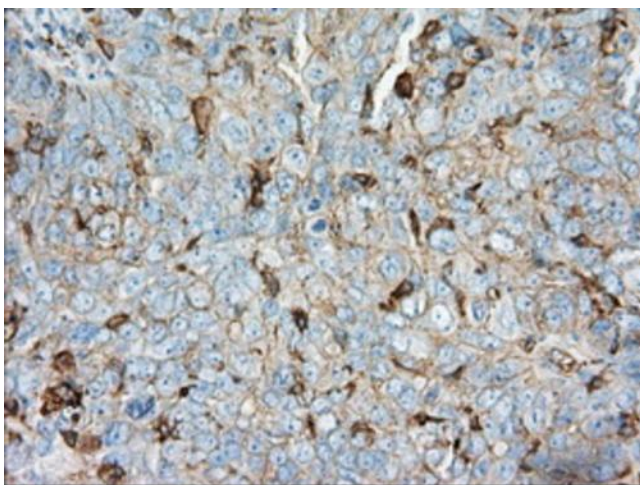
Anti-ALDH3A1 mouse monoclonal antibody (TA501105) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY ALDH3A1 (RC202440).



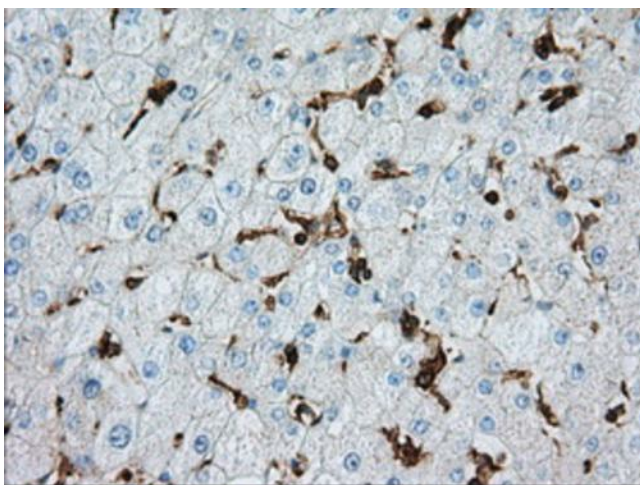
Immunohistochemical staining of paraffin-embedded prostate tissue within the normal limits using anti-ALDH3A1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



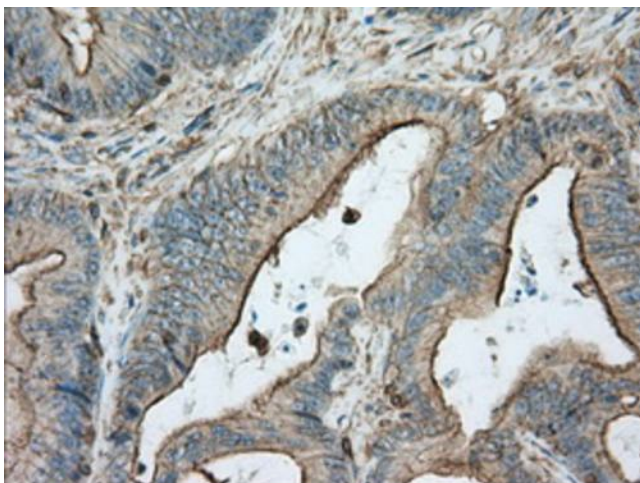
Immunohistochemical staining of paraffin-embedded pancreas tissue within the normal limits using anti-ALDH3A1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



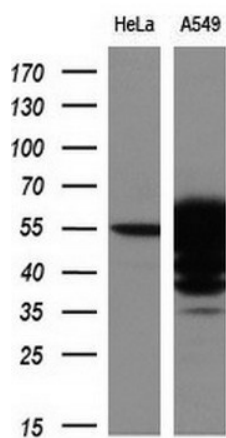
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of ovary tissue using anti-ALDH3A1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded liver tissue within the normal limits using anti-ALDH3A1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of colon tissue using anti-ALDH3A1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Western blot analysis of extracts (10ug) from 2 different cell lines by using anti-ALDH3A1 monoclonal antibody at 1:200 dilution.