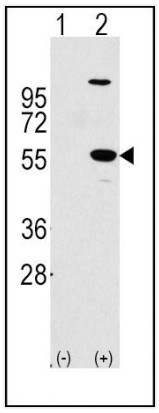
ALDH1A1 Antibody – Rabbit Polyclonal

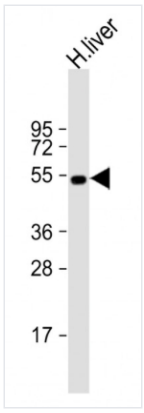
PRODUCT OVERVIEW

Product Name	ALDH1A1, Polyclonal Antibody
Full Product Name	ALDH1A1, ID (ALDH1A1, ALDC, ALDH1, PUMB1, Retinal dehydrogenase 1, ALDH-E1, ALHDII, Aldehyde dehydrogenase family 1 member A1, Aldehyde dehydrogenase, cytosolic) (FITC)
Product Gene Name	anti-ALDH1A1 antibody
Product Synonym Names	ALDH1A1; ALDC; ALDH1; PUMB1; Retinal dehydrogenase 1; ALDH-E1; ALHDII; Aldehyde dehydrogenase family 1 member A1; Aldehyde dehydrogenase; cytosolic
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Fluorescein Isothiocyanate (FITC).
Purity/Purification	Purified by Protein A/G Affinity Chromatography.
Specificity	Recognizes human ALDH1A1.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: FITC conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	501
OMIM	100640
3D Structure	ModBase 3D Structure for P00352
Immunogen	KLH-conjugated synthetic peptide mapping to a fragment of residues within amino acids 302-331 in the central region of human ALDH1A1. Species sequence homology: monkey, mouse
Conjugate	FITC
Note	Preservative Free
Special Handling	Light sensitive
Product Categories/Family for anti-ALDH1A1 antibody	Antibodies; Enzymes; Dehydrogenase
Applications Tested/Suitable for anti-ALDH1A1 antibody	Immunohistochemistry (IHC) Paraffin, Western Blot (WB), Immunofluorescence (IF), Flow Cytometry (FC/FACS), FLISA
Application Notes for anti-ALDH1A1 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-ALDH1A1 antibody	MBS6272732 is an antibody targeting ALDH1A1. Also known as ALDH1A1, ID (ALDH1A1, ALDC, ALDH1, PUMB1, Retinal dehydrogenase 1, ALDH-E1, ALHDII, Aldehyde dehydrogenase family 1 member A1, Aldehyde dehydrogenase, cytosolic) (FITC). Reactive in Human. Host: Rabbit.
Product References and Citations for anti-ALDH1A1 antibody	Moore, S., J Stud Alcohol Drugs 68 (2), 192-196 (2007). Collard, F., Biochimie 89 (3), 369-373 (2007).

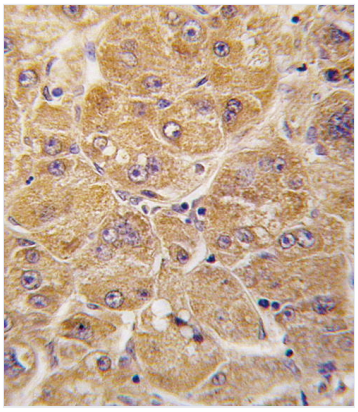
Other Notes	Small volumes of anti-ALDH1A1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



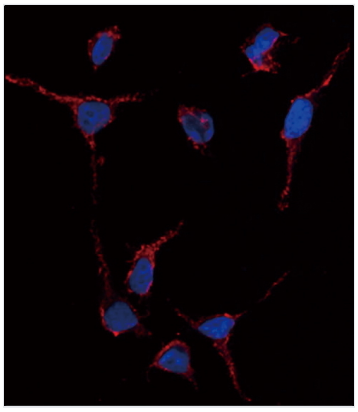
Western Blot (WB) of anti-ALDH1A1 antibody
Western Blot analysis of 293 cell lysates (2ug/lane) using MBS643330 in either nontransfected (Lane 1) or transiently transfected with the ALDH1A1 gene (Lane 2) (Origene Technologies).



Western Blot (WB) of anti-ALDH1A1 antibody
Western Blot analysis in human liver lysate (20ug) using MBS643330 (1:1000). Secondary IgG (HRP) Goat Anti-Rabbit. Predicted band size: 55kD.



Immunohistochemistry (IHC) of anti-ALDH1A1 antibody
Immunohistochemistry analysis in formalin-fixed and paraffin-embedded human hepatocarcinoma tissue usingMBS643330, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining.



Immunofluorescence (IF) of anti-ALDH1A1 antibody
Immunofluorescence analysis of HeLa cells using MBS643330 (0.025mg/ml) followed by Alexa-Fluor-546-conjugated donkey anti-rabbit IgG (H+L). Alexa-Fluor-546 emits orange fluorescence. Blue counterstaining is DAPI.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ALDH1A1. It may not necessarily be applicable to this product.

NCBI GI #	118495
NCBI GeneID	216
NCBI Accession #	P00352.2
UniProt Primary Accession #	P00352
UniProt Secondary Accession #	O00768; Q5SYR1
UniProt Related Accession #	P00352
NCBI Official Full Name	Retinal dehydrogenase 1
NCBI Official Synonym Full Names	aldehyde dehydrogenase 1 family, member A1
NCBI Official Symbol	ALDH1A1
NCBI Official Synonym Symbols	ALDC; ALDH1; HEL-9; HEL12; PUMB1; ALDH11; RALDH1; ALDH-E1; HEL-S-53e
UniProt Protein Name	Retinal dehydrogenase 1

UniProt Synonym Protein Names	ALDH-E1; ALHDII; Aldehyde dehydrogenase family 1 member A1; Aldehyde dehydrogenase, cytosolic
Protein Family	Retinal dehydrogenase
UniProt Gene Name	ALDH1A1
UniProt Synonym Gene Names	ALDC; ALDH1; PUMB1; RALDH 1; RalDH1
UniProt Entry Name	AL1A1_HUMAN
NCBI Protein Information	retinal dehydrogenase 1; ALHDII; RALDH 1; ALDH class 1; acetaldehyde dehydrogenase 1; epididymis luminal protein 9; epididymis luminal protein 12; retinaldehyde dehydrogenase 1; aldehyde dehydrogenase 1, soluble; aldehyde dehydrogenase, liver cytosolic; e
NCBI Summary for ALDH1A1	The protein encoded by this gene belongs to the aldehyde dehydrogenase family. Aldehyde dehydrogenase is the next enzyme after alcohol dehydrogenase in the major pathway of alcohol metabolism. There are two major aldehyde dehydrogenase isozymes in the liver, cytosolic and mitochondrial, which are encoded by distinct genes, and can be distinguished by their electrophoretic mobility, kinetic properties, and subcellular localization. This gene encodes the cytosolic isozyme. Studies in mice show that through its role in retinol metabolism, this gene may also be involved in the regulation of the metabolic responses to high-fat diet. [provided by RefSeq, Mar 2011]
UniProt Comments for ALDH1A1	ALDH1A1: Binds free retinal and cellular retinol-binding protein- bound retinal. Can convert/oxidize retinaldehyde to retinoic acid. Belongs to the aldehyde dehydrogenase family. Protein type: GAPs, Ras; EC 1.2.1.36; GAPs; Cofactor and Vitamin Metabolism - retinol; Apoptosis; Oxidoreductase Chromosomal Location of Human Ortholog: 9q21.13 Cellular Component: cytoplasm; cytosol Molecular Function: aldehyde dehydrogenase (NAD) activity; androgen binding; 3-chloroallyl aldehyde dehydrogenase activity; benzaldehyde dehydrogenase (NAD+) activity; retinal dehydrogenase activity Biological Process: retinol metabolic process; xenobiotic metabolic process; aldehyde metabolic process; ethanol oxidation
Research Articles on ALDH1A1	**1.** Our results provide the strong evidence that ALDH1A1(high) cancer stem-like cells contribute to the invasion, metastasis and poor outcome of human esophageal squamous cell carcinoma.
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