

Rabbit ALDH1A1 Polyclonal Antibody | anti-ALDH1A1 antibody

ALDH1A1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326390	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

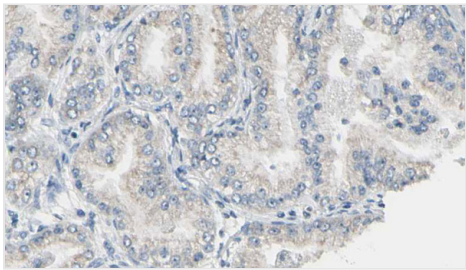
PRODUCT SYNONYMS

ALDH1A1; Polyclonal Antibody; ALDH1A1 Antibody; Acetaldehyde dehydrogenase 1; AHD2; AL1A1_HUMAN; ALDC; Aldehyde dehydrogenase 1 family member A1; Aldehyde dehydrogenase 1 soluble; Aldehyde dehydrogenase 1A1; Aldehyde dehydrogenase; Aldehyde dehydrogenase cytosolic; Aldehyde dehydrogenase family 1 member A1; Aldehyde dehydrogenase liver cytosolic; ALDH 1; ALDH 1A1; ALDH class 1; ALDH; liver cytosolic; ALDH-E1; ALDH1 A1; ALDH1; ALDH11; ALHDII; cytosolic; epididymis luminal protein 12; epididymis luminal protein 9; epididymis secretory sperm binding protein Li 53e; HEL-S-53e; MGC2318; PUMB1; RALDH 1; RaLDH1; Retinal dehydrogenase 1; anti-ALDH1A1 antibody

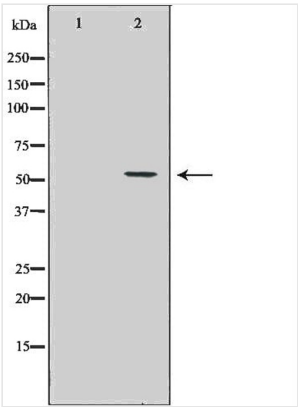
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	ALDH1A1 antibody detects endogenous levels of total ALDH1A1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	501
Applicable Applications for anti-ALDH1A1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ALDH1A1
Subcellular Location	Cytoplasm.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken
Similarity	Pig (91%), Bovine (91%), Horse (100%), Sheep (91%), Rabbit (100%), Dog (82%), Chicken (82%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
AAA326390 at 1/100 staining Human prostate tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of Hepg2 whole cell lysates, using ALDH1A1 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-ALDH1A1 antibody

Description: The aldehyde dehydrogenase family is a large group of enzymes that oxidize aldehydes formed through metabolic processes to their carboxylic acids (1). ALDH1A1 is a liver cytosolic isoform of acetaldehyde dehydrogenase and is involved in the major pathway of alcohol metabolism along with alcohol dehydrogenase (2). ALDH1A1 is also known as retinal dehydrogenase 1 and is involved in retinol metabolism, converting retinol to retinoic acid (3). Recent studies suggest that control of retinoid signaling through ALDH1A1 may influence hematopoietic stem cell differentiation (4). There has been recent interest in ALDH1 isoforms as predictive biomarkers in disease. Several studies have suggested that ALDH1A1 is a potential marker for cancer stem cells and chemoresistance in several tumor types, such as melanoma (5), lung cancer (6), glioblastoma (7).

Function: Can convert/oxidize retinaldehyde to retinoic acid. Binds free retinal and cellular retinol-binding protein-bound retinal (By similarity). May have a broader specificity and oxidize other aldehydes in vivo (PubMed:19296407, PubMed:26373694, PubMed:25450233).

Subunit Structure: Homotetramer.

Post-translational Modifications: The N-terminus is blocked most probably by acetylation.

Similarity: Belongs to the aldehyde dehydrogenase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	21361176
NCBI GeneID	216
NCBI Accession #	NP_000680.2
NCBI GenBank Nucleotide #	NM_000689.4
UniProt Accession #	P00352; O00768; Q5SYR1
Molecular Weight	Observed: 55 kDa Predicted: 55 kDa
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
NCBI Protein Information	retinal dehydrogenase 1
UniProt Protein Name	Retinal dehydrogenase 1
UniProt Gene Name	ALDH1A1

UniProt Synonym Gene Names

ALDC; ALDH1ImportedManual assertion inferred from database entriesiHGNC:402; PUMB1ImportedManual assertion inferred from database entriesiHGNC:402; RALDH 1Curated; RaIDH1Curated

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/aldh1a1-antibody-immunohistochemistry-western-blot-elisa/326390>