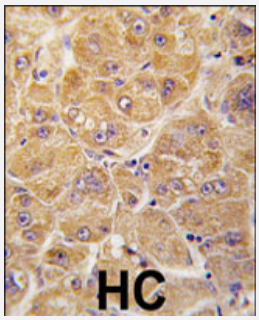
ALDH1A1 polyclonal antibody

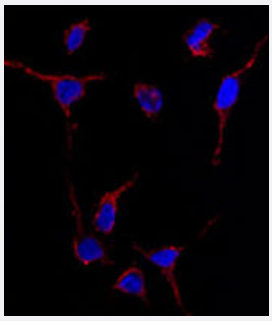
Catalog # PAB3123 Size 400 uL

Applications



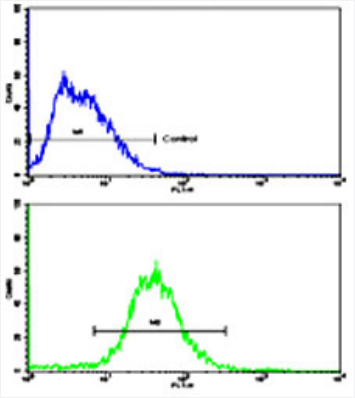
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Formalin-fixed and paraffin-embedded human hepatocellular carcinoma reacted with ALDH1A1 polyclonal antibody (Cat # PAB3123) , 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.



Immunofluorescence

Immunofluorescence analysis of ALDH1A1 polyclonal antibody (Cat # PAB3123) in HeLa cells. Primary antibody was followed by Alexa-Fluor-546-conjugated donkey anti-rabbit IgG (H+L). Alexa-Fluor-546 emits orange fluorescence. Blue counterstaining is DAPI.



Flow Cytometry

Flow cytometric analysis of HepG2 cells using ALDH1A1 polyclonal antibody (Cat # PAB3123)(bottom histogram) compared to a negative control cell (top histogram).
FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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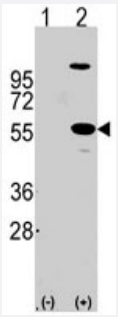

Western Blot (Transfected lysate)

Western blot analysis of ALDH1A1 (arrow) using rabbit ALDH1A1 polyclonal antibody (Cat # PAB3123). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the ALDH1A1 gene (Lane 2) (Origene Technologies).

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of ALDH1A1.
Immunogen	A synthetic peptide (conjugated with KLH) corresponding to internal region of human ALDH1A1.
Host	Rabbit
Reactivity	Human
Form	Liquid
Purification	Protein A purification
Recommend Usage	Western Blot (1:1000) Immunofluorescence (1:10-50) Immunohistochemistry (1:50) Flow cytometry (1:10-50) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.09% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

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Gene Info — ALDH1A1

Entrez GeneID	216
Protein Accession#	NP_000680;P00352
Gene Name	ALDH1A1
Gene Alias	ALDC, ALDH-E1, ALDH1, ALDH11, MGC2318, PUMB1, RALDH1
Gene Description	aldehyde dehydrogenase 1 family, member A1
Gene Ontology	Hyperlink
Gene Summary	This protein belongs to the aldehyde dehydrogenases family of proteins. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Two major liver isoforms of this enzyme, cytosolic and mitochondrial, can be distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations. Most Caucasians have two major isozymes, while approximately 50% of Orientals have only the cytosolic isozyme, missing the mitochondrial isozyme. A remarkably higher frequency of acute alcohol intoxication among Orientals than among Caucasians could be related to the absence of the mitochondrial isozyme. This gene encodes a cytosolic isoform, which has a high affinity for aldehydes. [provided by RefSeq
Other Designations	ALDH class 1|acetaldehyde dehydrogenase 1|aldehyde dehydrogenase 1, soluble|aldehyde dehydrogenase 1A1|aldehyde dehydrogenase, liver cytosolic|retinal dehydrogenase 1|retinaldehyde dehydrogenase 1

Publication Reference

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- Association of ALDH1 promoter polymorphisms with alcohol-related phenotypes in Trinidad and Tobago.

  Moore S, Montane-Jaime K, Shafe S, Joseph R, Crooks H, Carr LG, Ehlers CL.

  Journal of Studies on Alcohol and Drugs 2007 Mar; 68(2):192.

- Identification of 3-deoxyglucosone dehydrogenase as aldehyde dehydrogenase 1A1 (retinaldehyde dehydrogenase 1).

  Collard F, Vertommen D, Fortpied J, Duester G, Van Schaftingen E.

  Biochimie 2007 Mar; 89(3):369.

Pathway

- Metabolic pathways
- Retinol metabolism

Disease

- Alcoholism
- Breast cancer
- Breast Neoplasms
- Carcinoma
- Chromosome Deletion
- Cleft Lip
- Cleft Palate
- Disease Models
- Drug Toxicity
- Genetic Predisposition to Disease
- Kidney Failure
- Lymphoma
- Neoplasms

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- Ovarian cancer
- Ovarian Neoplasms
- Schizophrenia
- Tobacco Use Disorder

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