

For Research Use Only

# ALDH1A1-specific Polyclonal antibody

Catalog Number: 22109-1-AP

Featured Product

8 Publications



## Basic Information

<b>Catalog Number:</b> 22109-1-AP	<b>GenBank Accession Number:</b> BC001505	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul, Concentration: 500 ug/ml by Nanodrop and 313 ug/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 216	<b>Recommended Dilutions:</b> WB 1:5000-1:50000 IHC 1:50-1:500 IF/ICC 1:200-1:800
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P00352	
<b>Isotype:</b> IgG	<b>Full Name:</b> aldehyde dehydrogenase 1 family, member A1	
<b>Immunogen Catalog Number:</b> AG17358	<b>Calculated MW:</b> 501 aa, 55 kDa	
	<b>Observed MW:</b> 55 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, ELISA

**Cited Applications:**  
WB, IHC, IF, IP

**Species Specificity:**  
human, mouse, rat

**Cited Species:**  
human, mouse

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB:** A549 cells, human liver tissue, K-562 cells, HepG2 cells, mouse liver tissue

**IHC:** human liver tissue,

**IF/ICC:** A549 cells,

## Background Information

ALDH1A1 (Aldehyde dehydrogenase family 1 member A1), also named as ALDC, ALDH1 and PUMB1, belongs to the aldehyde dehydrogenase family. The ALDH1A1 gene encodes a liver cytosolic isoform of acetaldehyde dehydrogenase, an enzyme involved in the major pathway of alcohol metabolism after alcohol dehydrogenase. ALDH1A1 plays a critical role in protection against oxidative stress-induced cytotoxicity in lens epithelial cells (PMID:19296407). And it is important for multiple biological activities including drug resistance, cell differentiation, and oxidative stress response (PMID:19025616). As a novel cancer stem cell marker, ALDH1A1 can be used for tumors whose corresponding normal tissues express ALDH1 in relatively restricted or limited levels such as breast, lung, ovarian or colon cancer (PMID: 20422001). This antibody can also recognize some other membranes of the aldehyde dehydrogenase family. This antibody is specific to ALDH1A1.

## Notable Publications

Author	Pubmed ID	Journal	Application
Dandan Liu	33367934	Int J Oncol	WB
L Yang	28895409	Neoplasma	WB
Junlong Zhuang	28839463	Theranostics	WB

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

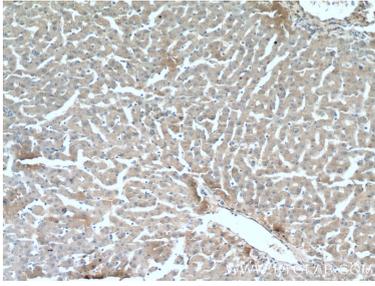
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

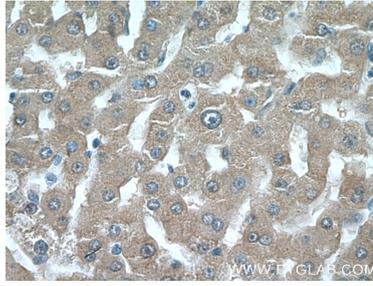
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

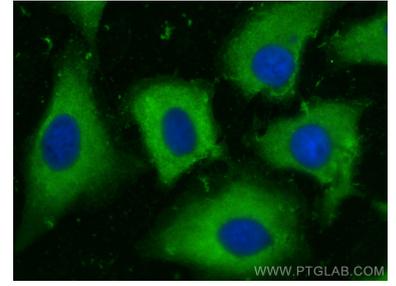
## Selected Validation Data



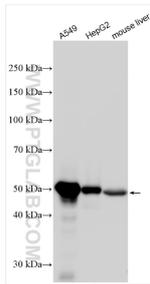
Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 22109-1-AP (ALDH1A1 Antibody) at dilution of 1:200 (under 10x lens).



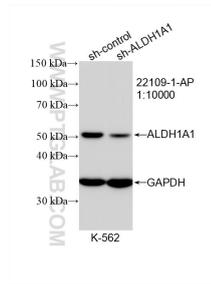
Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 22109-1-AP (ALDH1A1 Antibody) at dilution of 1:200 (under 40x lens).



Immunofluorescent analysis of (-20°C Methanol) fixed A549 cells using ALDH1A1-specific antibody (22109-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Various lysates were subjected to SDS PAGE followed by western blot with 22109-1-AP (ALDH1A1-specific antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours.



WB result of ALDH1A1-specific antibody (22109-1-AP; 1:10000; incubated at room temperature for 1.5 hours) with sh-Control and sh-ALDH1A1-specific transfected K-562 cells.