

For Research Use Only

# ALDH1A1 Polyclonal antibody

Catalog Number: 15910-1-AP

Featured Product

138 Publications



## Basic Information

### Catalog Number:

15910-1-AP

### Size:

150ul, Concentration: 450 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG8665

### GenBank Accession Number:

BC001505

### GeneID (NCBI):

216

### UNIPROT ID:

P00352

### Full Name:

aldehyde dehydrogenase 1 family, member A1

### Calculated MW:

501 aa, 55 kDa

### Observed MW:

50-55 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:5000-1:50000

IHC 1:50-1:500

IF-P 1:50-1:500

IF/ICC 1:200-1:800

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IF-P, FC (Intra), ELISA

### Cited Applications:

WB, IHC, IF, CoIP, ELISA

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, bovine

### Positive Controls:

WB: K-562 cells, mouse liver tissue, rat liver tissue, mouse brain tissue, mouse kidney tissue

IHC: mouse testis tissue, human liver tissue

IF-P: mouse colon tissue, mouse testis tissue

IF/ICC: A549 cells,

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

## 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 members of the aldehyde dehydrogenase family.

## Notable Publications

Author	Pubmed ID	Journal	Application
Lei Liu	30273566	Chem Biol Interact	WB
XIAOYUE FENG	34528694	Oncol Rep	WB
Maria Laura Tognoli	34532864	EMBO J	IF

## Storage

### Storage:

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

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

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

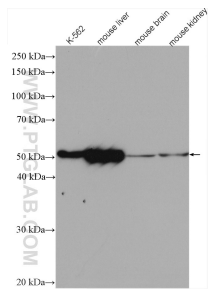
For technical support and original validation data for this product please contact:

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

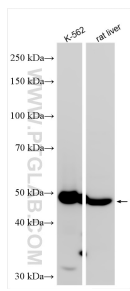
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

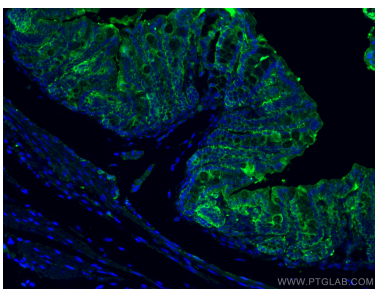
Selected Validation Data



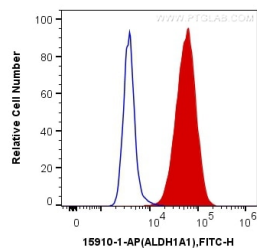
Various lysates were subjected to SDS PAGE followed by western blot with 15910-1-AP (ALDH1A1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



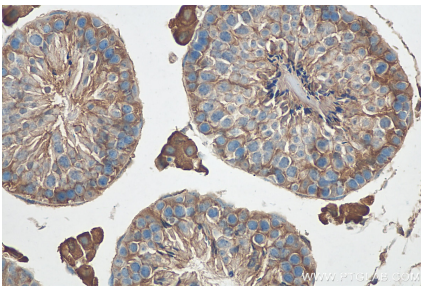
Various lysates were subjected to SDS PAGE followed by western blot with 15910-1-AP (ALDH1A1 antibody) at dilution of 1:25000 incubated at room temperature for 1.5 hours.



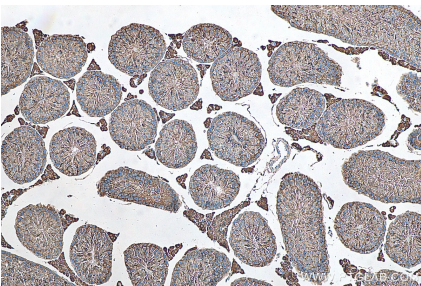
Immunofluorescent analysis of (4% PFA) fixed mouse colon tissue using 15910-1-AP (ALDH1A1 antibody), at dilution of 1:100 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



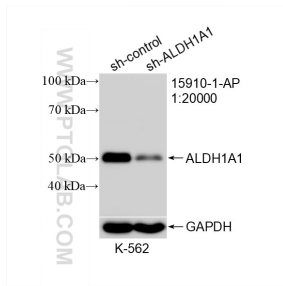
1X10<sup>6</sup> HepG2 cells were intracellularly stained with 0.2 ug Anti-Human ALDH1A1 (15910-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.2 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



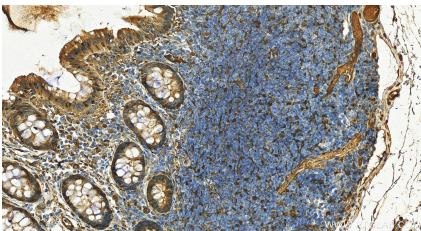
Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 15910-1-AP (ALDH1A1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



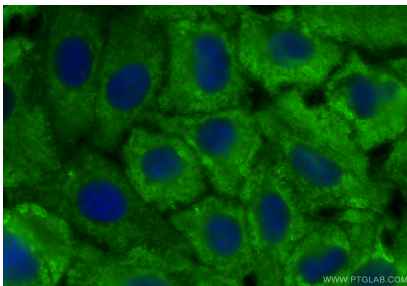
Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 15910-1-AP (ALDH1A1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



WB result of ALDH1A1 antibody (15910-1-AP; 1:20000; incubated at room temperature for 1.5 hours) with sh-Control and sh-ALDH1A1 transfected K-562 cells.



Immunohistochemical analysis of paraffin-embedded human normal colon tissue slide using 15910-1-AP (ALDH1A1 antibody) at dilution of 1:400 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Methanol) fixed A549 cells using ALDH1A1 antibody (15910-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).