

For Research Use Only

# ALDH1A1 Monoclonal antibody, PBS Only



Catalog Number: 60171-1-PBS

Featured Product

## Basic Information

**Catalog Number:**

60171-1-PBS

**Size:**

100ug, Concentration: 1 mg/ml by Nanodrop;

**Source:**

Mouse

**Isotype:**

IgG1

**Immunogen Catalog Number:**

AG8551

**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:**

52 kDa

**Purification Method:**

Protein A purification

**CloneNo.:**

1A10A2

## Applications

**Tested Applications:**

WB, IF, FC, IHC, Indirect ELISA

**Species Specificity:**

human, mouse, rat, pig

## 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 ALDH1A1 in relatively restricted or limited levels such as breast, lung, ovarian or colon cancer (PMID: 20422001).

## Storage

**Storage:**

Store at -80°C.

**Storage Buffer:**

PBS Only

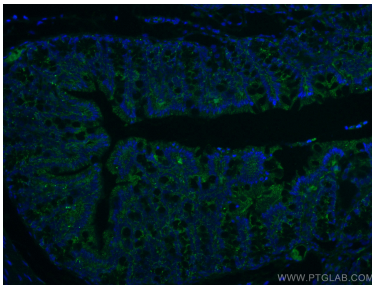
For technical support and original validation data for this product please contact:

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

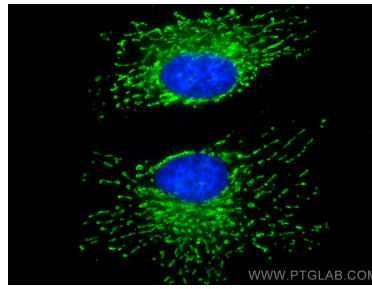
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

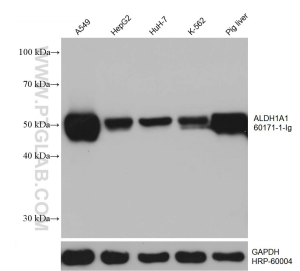
## Selected Validation Data



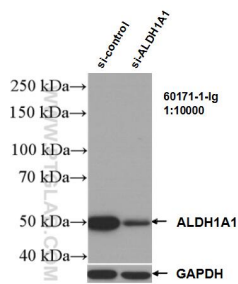
Immunofluorescent analysis of (4% PFA) fixed mouse colon tissue using 60171-1-Ig (ALDH1A1 antibody), at dilution of 1:100 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 60171-1-PBS in a different storage buffer formulation.



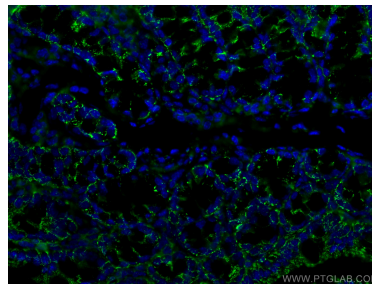
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using ALDH1A1 antibody (60171-1-Ig, Clone: 1A10A2) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 60171-1-PBS in a different storage buffer formulation.



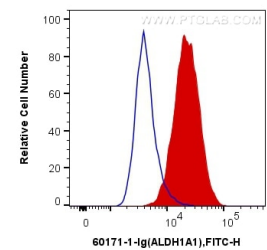
Various lysates were subjected to SDS PAGE followed by western blot with 60171-1-Ig (ALDH1A1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control. This data was developed using the same antibody clone with 60171-1-PBS in a different storage buffer formulation.



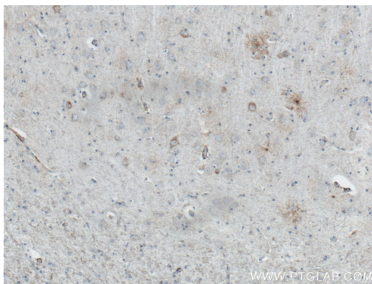
WB result of ALDH1A1 antibody (60171-1-Ig; 1:10000; incubated at room temperature for 1.5 hours) with sh-Control and sh-ALDH1A1 transfected K-562 cells. This data was developed using the same antibody clone with 60171-1-PBS in a different storage buffer formulation.



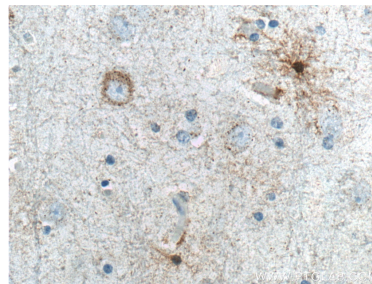
Immunofluorescent analysis of (4% PFA) fixed mouse colon tissue using 60171-1-Ig (ALDH1A1 antibody), at dilution of 1:100 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 60171-1-PBS in a different storage buffer formulation.



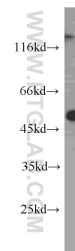
1X10<sup>6</sup> HepG2 cells were intracellularly stained with 0.2 ug Anti-Human ALDH1A1 (60171-1-Ig, Clone:1A10A2) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.2 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C). This data was developed using the same antibody clone with 60171-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human brain tissue slide using 60171-1-Ig (ALDH1A1 Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieved with Sodium Citrate buffer (pH 6.0). This data was developed using the same antibody clone with 60171-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human brain tissue slide using 60171-1-Ig (ALDH1A1 Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieved with Sodium Citrate buffer (pH 6.0). This data was developed using the same antibody clone with 60171-1-PBS in a different storage buffer formulation.



MCF7 cells were subjected to SDS PAGE followed by western blot with 60171-1-Ig (ALDH1A1 antibody) at dilution of 1:500 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 60171-1-PBS in a different storage buffer formulation.