

For Research Use Only

ALDH1A1 Polyclonal antibody

Catalog Number: 15910-1-AP

Featured Product

114 Publications



Basic Information

Catalog Number:

15910-1-AP

Size:

450 µg/ml

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 1:1000-1:4000

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF 1:50-1:500

Applications

Tested Applications:

FC, IF/ICC, IF-P, IHC, IP, WB, ELISA

Cited Applications:

CoIP, ELISA, IF, IHC, WB

Species Specificity:

human, mouse, rat

Cited Species:

human, rat, mouse, bovine

Positive Controls:

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

IP: mouse liver tissue,

IHC: mouse testis tissue, human liver tissue

IF: mouse colon tissue, HepG2 cells, mouse testis tissue

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 pH 7.3.

Aliquoting is unnecessary for -20°C storage

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

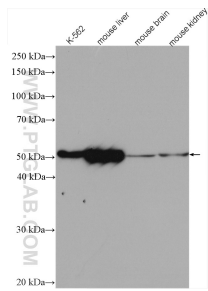
T: 4006900926

E: Proteintech-CN@ptglab.com

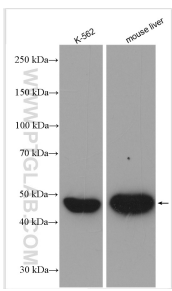
W: ptgcn.com

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

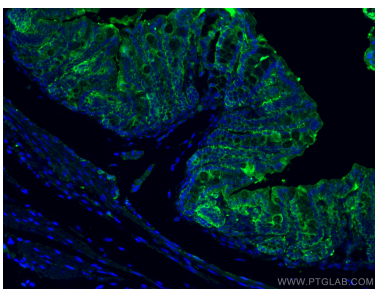
Selected Validation Data



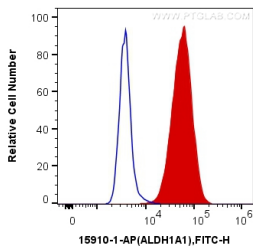
Various lysates were subjected to SDS PAGE followed by western blot with 15910-1-AP (ALDH1A1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



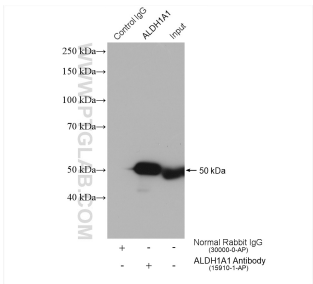
Various lysates were subjected to SDS PAGE followed by western blot with 15910-1-AP (ALDH1A1 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



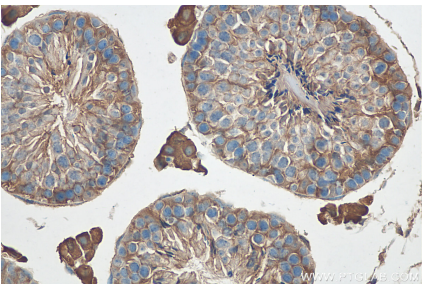
Immunofluorescent analysis of (4% PFA) fixed mouse colon tissue using 15910-1-AP (ALDH1A1 antibody), at dilution of 1:100 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



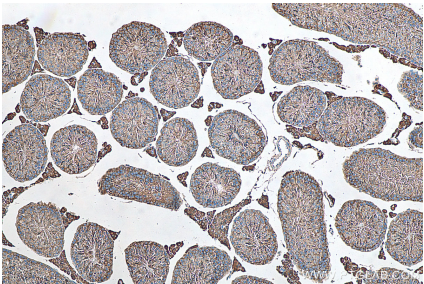
1X10⁶ HepG2 cells were intracellularly stained with 0.2 ug Anti-Human ALDH1A1 (15910-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.2 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



IP result of anti-ALDH1A1 (IP:15910-1-AP, 4ug; Detection:15910-1-AP 1:10000) with mouse liver tissue lysate 3040 ug.



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).