

For Research Use Only

ALDH1A1 Monoclonal antibody

Catalog Number: 60171-1-Ig

Featured Product

14 Publications



Basic Information

Catalog Number:

60171-1-Ig

Concentration:

1000 ug/ml

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

Recommended Dilutions:

WB 1:5000-1:50000

IHC 1:50-1:500

IF/ICC 1:400-1:1600

Applications

Tested Applications:

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

Cited Applications:

WB, IHC, IF, IP, CoIP

Species Specificity:

human, mouse, rat, pig

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, K-562 cells, pig liver tissue, rat liver tissue, HepG2 cells, HuH-7 cells

IHC: human brain tissue,

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

Notable Publications

Author	Pubmed ID	Journal	Application
Ting Tang	33173989	Mol. Med Rep	WB
Haihua Wang	36484016	J Cancer	WB, IHC
Rui-Qi Wang	31139022	Cancer Cell Int	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

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

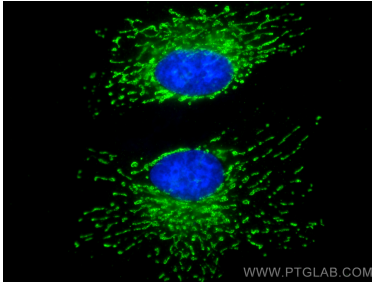
T: 4006900926

E: Proteintech-CN@ptglab.com

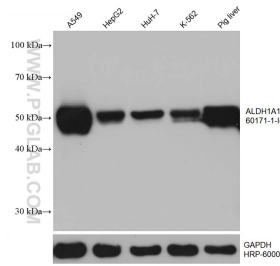
W: ptgcn.com

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

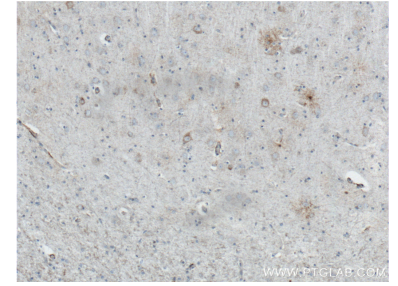
Selected Validation Data



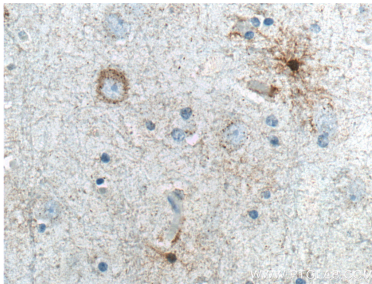
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using ALDH1A1 antibody (60171-1-Ig, Clone: 1A10A2) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



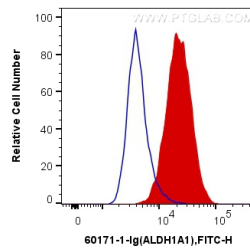
Various lysates were subjected to SDS PAGE followed by western blot with 60171-1-Ig (ALDH1A1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



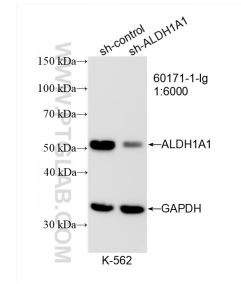
Immunohistochemical analysis of paraffin-embedded human brain tissue slide using 60171-1-Ig (ALDH1A1 Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieved with Sodium Citrate buffer (pH 6.0).



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).



1X10⁶ 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).



WB result of ALDH1A1 antibody (60171-1-Ig; 1:6000; incubated at room temperature for 1.5 hours) with sh-Control and sh-ALDH1A1 transfected K-562 cells.