

For Research Use Only

ALDH1A1 Monoclonal antibody

Catalog Number: 60171-1-Ig

Featured Product

11 Publications



Basic Information

Catalog Number: 60171-1-Ig	GenBank Accession Number: BC001505	Purification Method: Protein A purification
Size: 150ul , Concentration: 1000 µg/ml by Nanodrop;	GeneID (NCBI): 216	CloneNo.: 1A10A2
Source: Mouse	UNIPROT ID: P00352	Recommended Dilutions: WB 1:5000-1:50000 IHC 1:50-1:500 IF 1:400-1:1600
Isotype: IgG1	Full Name: aldehyde dehydrogenase 1 family, member A1	
Immunogen Catalog Number: AG8551	Calculated MW: 501 aa, 55 kDa	
	Observed MW: 52 kDa	

Applications

Tested Applications: WB, IF, FC, IHC, ELISA	Positive Controls:
Cited Applications: WB, IP, IF, FC, IHC, ColP	WB : A549 cells, MCF-7 cells, pig liver tissue, rat liver tissue, K-562 cells, HepG2 cells, HuH-7 cells
Species Specificity: human, mouse, rat, pig	IHC : human brain tissue,
Cited Species: human, mouse	IF : HeLa cells, A431 cells, mouse colon 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 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

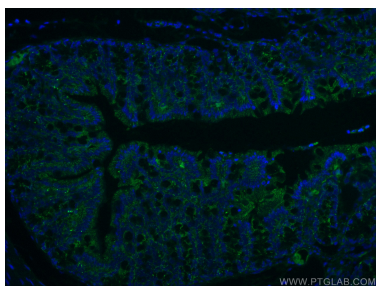
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

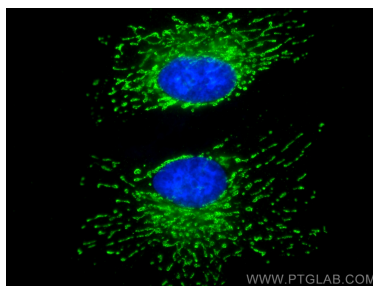
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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

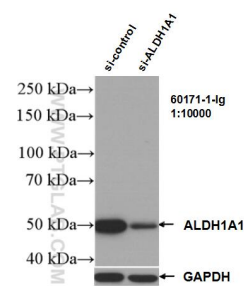
Selected Validation Data



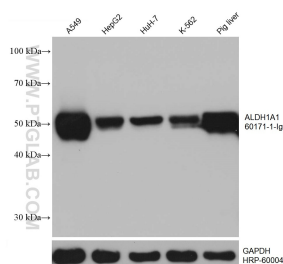
Immunofluorescent analysis of (4% PFA) fixed mouse colon tissue using 60171-1-Ig (ALDH1A1 antibody), at dilution of 1:100 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



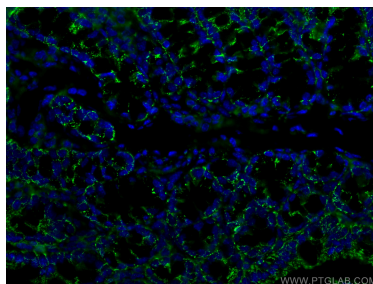
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using ALDH1A1 antibody (60171-1-Ig, Clone: 1A10A2) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



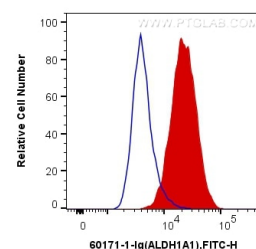
WB result of ALDH1A1 antibody (60171-1-Ig; 1:10000; incubated at room temperature for 1.5 hours) with sh-Control and sh-ALDH1A1 transfected K-562 cells.



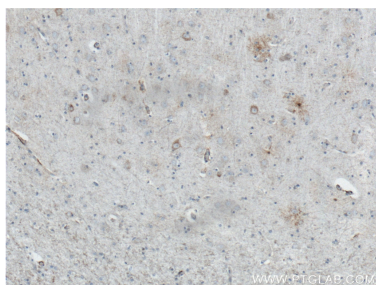
Various lysates were subjected to SDS PAGE followed by western blot with 60171-1-Ig (ALDH1A1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



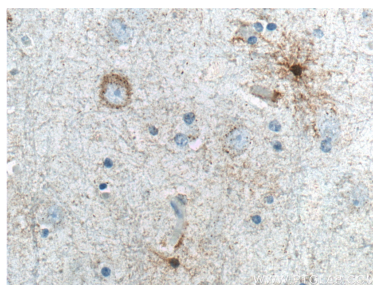
Immunofluorescent analysis of (4% PFA) fixed mouse colon tissue using 60171-1-Ig (ALDH1A1 antibody), at dilution of 1:100 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



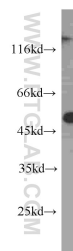
1X10⁶ HepG2 cells were intracellularly stained with 0.2 ug Anti-Human ALDH1A1 (60171-1-Ig, Clone:1A10A2) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.2 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



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).



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.