

For Research Use Only

ALDH1A1-specific Polyclonal antibody

Catalog Number: 22109-1-AP

Featured Product

8 Publications



Basic Information

Catalog Number:

22109-1-AP

Size:

150ul, Concentration: 500 ug/ml by Nanodrop and 313 ug/ml by Bradford method using BSA as the standard;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG17358

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:

55 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:5000-1:50000

IHC 1:50-1:500

IF/ICC 1:200-1:800

Applications

Tested Applications:

WB, IHC, IF/ICC, ELISA

Cited Applications:

WB, IHC, IF, IP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse

Positive Controls:

WB : A549 cells, human liver tissue, K-562 cells, HepG2 cells, mouse liver tissue

IHC : human liver 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. This antibody is specific to ALDH1A1.

Notable Publications

Author	Pubmed ID	Journal	Application
Dandan Liu	33367934	Int J Oncol	WB
L Yang	28895409	Neoplasma	WB
Junlong Zhuang	28839463	Theranostics	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

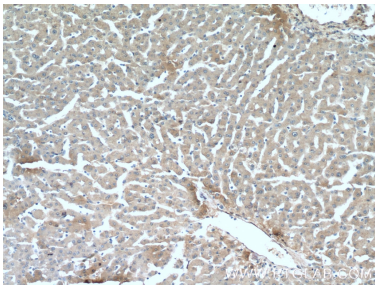
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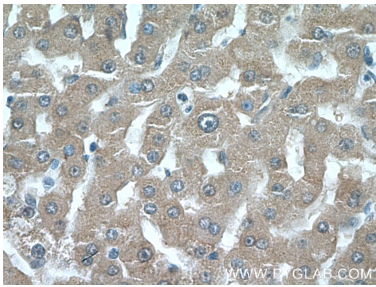
E: proteintech@ptglab.com
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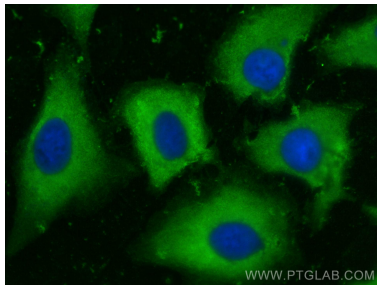
Selected Validation Data



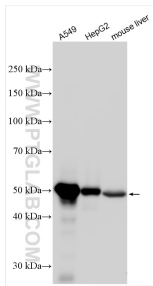
Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 22109-1-AP (ALDH1A1 Antibody) at dilution of 1:200 (under 10x lens).



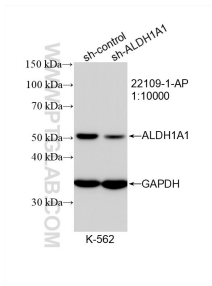
Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 22109-1-AP (ALDH1A1 Antibody) at dilution of 1:200 (under 40x lens).



Immunofluorescent analysis of (-20°C Methanol) fixed A549 cells using ALDH1A1-specific antibody (22109-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Various lysates were subjected to SDS PAGE followed by western blot with 22109-1-AP (ALDH1A1-specific antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours.



WB result of ALDH1A1-specific antibody (22109-1-AP; 1:10000; incubated at room temperature for 1.5 hours) with sh-Control and sh-ALDH1A1-specific transfected K-562 cells.