

ALDH1A1 Polyclonal Antibody

Catalog NumberPA5-32127

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Human, Mouse, Rat
Host/Isotope	Rabbit / IgG	Published species	Rat, Human, Not Applicable
Class	Polyclonal	Tested Applications	
Type	Antibody	Immunohistochemistry (Paraffin) (IHC (P))	1:100-1:1,000
Immunogen	Recombinant protein fragment corresponding to a region within amino acids 192 and 501 of Human ALDH1A1	Western Blot (WB)	1:1,000-1:10,000
		Immunocytochemistry (ICC/IF)	1:100-1:1,000
Conjugate	Unconjugated	Published Applications	
Form	Liquid	Immunohistochemistry (IHC)	See 1 publications below
Concentration	1 mg/mL	<div>* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.</div>	
Purification	Antigen affinity chromatography		
Storage buffer	PBS, pH 7, with 1% BSA, 20% glycerol		
Contains	0.01% thimerosal		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

Product specific information

Recommended positive controls: A549, mouse liver, rat liver. Predicted reactivity: Mouse (90%), Rat (90%), Xenopus laevis (81%), Dog (90%), Rabbit (90%), Chicken (86%), Sheep (93%), Chimpanzee (100%), Bovine (93%). Store product as a concentrated solution. Centrifuge briefly prior to opening the vial.

Background/Target Information

ALDH1A1 belongs to the aldehyde dehydrogenases family of proteins. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. Two major liver isoforms of this enzyme, cytosolic and mitochondrial, can be distinguished by their electrophoretic mobilities, kinetic properties, and subcellular localizations. Most Caucasians have two major isozymes, while approximately 50% of Orientals have only the cytosolic isozyme, missing the mitochondrial isozyme. A remarkably higher frequency of acute alcohol intoxication among Orientals than among Caucasians could be related to the absence of the mitochondrial isozyme.

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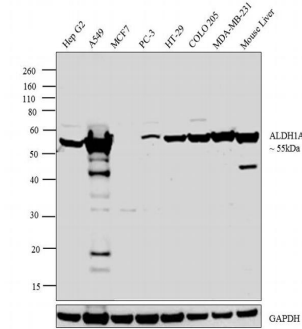
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Product Images For ALDH1A1 Polyclonal Antibody

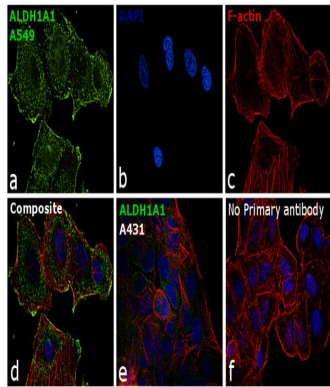
ALDH1A1 Antibody (PA5-32127) in WB

Western blot analysis was performed on whole cell extracts (30 µg lysate) of Hep G2 (Lane 1), A549 (Lane 2), MCF7 (Lane 3), PC-3 (Lane 4), HT-29 (Lane 5), COLO 205 (Lane 6), MDA-MB-231 (Lane 7) and tissue extract of Mouse Liver (Lane 8). The blot was probed with Anti-ALDH1A1 Polyclonal Antibody (Product # PA5-32127, 1:1,000 dilution) and detected by chemiluminescence using Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, HRP conjugate (Product # A27036, 0.25 µg/mL, 1:4,000 dilution). A 55 kDa band corresponding to ALDH1A1 was detected across the cell lines and tissue tested except for MCF7 which is reported negative for ALDH1A1 expression.



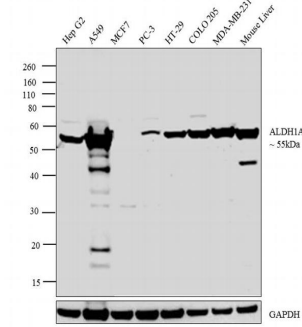
ALDH1A1 Antibody (PA5-32127)

Antibody specificity was demonstrated by detection of differential basal expression of the target across cell models owing to their inherent genetic constitution. Immunofluorescence analysis using ALDH1A1 Polyclonal antibody (Product # PA5-32127) showed increased expression of ALDH1A1 in A-549 when compared to A-431. {RE}



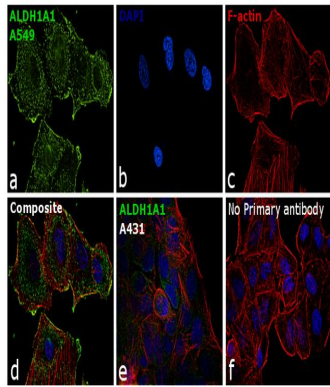
ALDH1A1 Antibody (PA5-32127)

Antibody specificity was demonstrated by detection of differential basal expression of the target across cell models owing to their inherent genetic constitution. Expression of ALDH1A1 Polyclonal Antibody was not observed specifically in MCF7 using Anti-ALDH1A1 Polyclonal Antibody (Product # PA5-32127) in Western Blot. {RE}



ALDH1A1 Antibody (PA5-32127) in ICC/IF

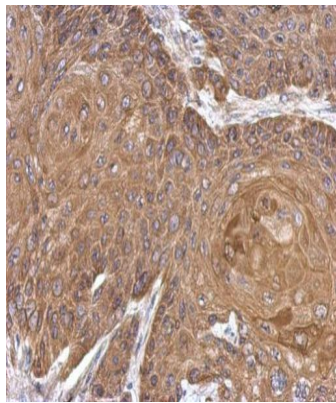
Immunofluorescence analysis of ALDH1A1 was performed using 70% confluent log phase A549 cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 15 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with ALDH1A1 Polyclonal Antibody (Product # PA5-32127) at 5 µg/mL in 0.1% BSA, incubated at 4 degree Celsius overnight and then labeled with Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A27034) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: red) was stained with Rhodamine Phalloidin (Product # R415). Panel d represents the merged image showing cytoplasmic localization. Panel e represents A-431 cells having lower expression of ALDH1A1. Panel f represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



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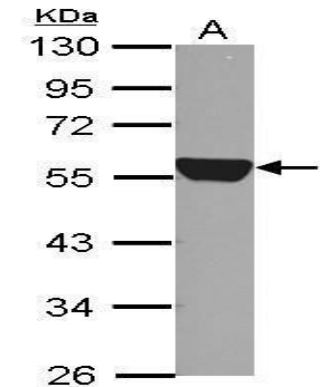
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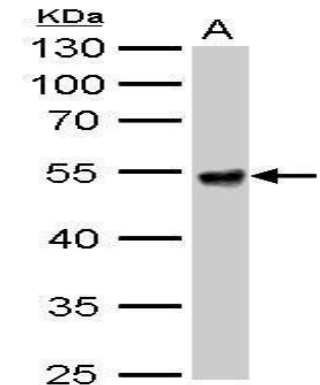
### ALDH1A1 Antibody (PA5-32127) in IHC (P)

Immunohistochemical analysis of paraffin-embedded Cal27 xenograft, using ALDH1A1 (Product # PA5-32127) antibody at 1:500 dilution. Antigen Retrieval: EDTA based buffer, pH 8.0, 15 min.



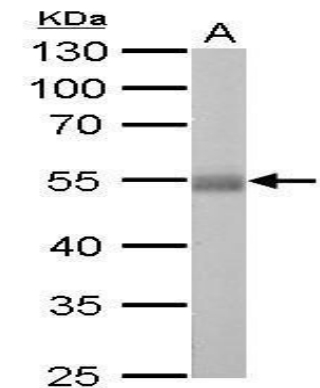
### ALDH1A1 Antibody (PA5-32127) in WB

Western Blot using ALDH1A1 Polyclonal Antibody (Product # PA5-32127). Sample (30 µg of whole cell lysate). Lane A: A549. 10% SDS PAGE. ALDH1A1 Polyclonal Antibody (Product # PA5-32127) diluted at 1:5,000. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody.



### ALDH1A1 Antibody (PA5-32127) in WB

ALDH1A1 Polyclonal Antibody detects ALDH1A1 protein by western blot analysis. A. 50 µg mouse liver lysate/extract. 10% SDS-PAGE. ALDH1A1 Polyclonal Antibody (Product # PA5-32127) dilution: 1:10,000. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody.



### ALDH1A1 Antibody (PA5-32127) in WB

ALDH1A1 Polyclonal Antibody detects ALDH1A1 protein by western blot analysis. A. 50 µg rat liver lysate/extract. 10% SDS-PAGE. ALDH1A1 Polyclonal Antibody (Product # PA5-32127) dilution: 1:5,000. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody.

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PubMed References For ALDH1A1 Polyclonal Antibody

1 Immunohistochemistry References

Species / Dilution	Summary
	PA5-32127 was used in Immunohistochemistry to evaluate the oncostatic activities of Rhus coriaria L. (sumac) using animal models (rat and mouse), and cell lines of breast carcinoma.
Rat / 1:500	<p>International journal of molecular sciences ( 2020; 22: )</p> <p><b>"&lt;i&gt;Rhus coriaria&lt;/i&gt; L. (Sumac) Demonstrates Oncostatic Activity in the Therapeutic and Preventive Model of Breast Carcinoma."</b></p> <p>Author(s):Kubatka P,Kello M,Kajo K,Samec M,Liskova A,Jasek K,Koklesova L,Kuruc T,Adamkov M,Smejkal K,Svajdlenka E,Solar P,Pec M,Büsselberg D,Sadlonova V,Mojzis J</p> <p>PubMed Article URL:<a href="http://dx.doi.org/10.3390/ijms22010183">http://dx.doi.org/10.3390/ijms22010183</a></p>

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