

Product datasheet

Anti-ALDH1A1 antibody [EP1933Y] - C-terminal ab52492

Recombinant **RabMAb**

★★★★☆ 13 Abreviews 78 References 9 Images

Overview

Product name	Anti-ALDH1A1 antibody [EP1933Y] - C-terminal
Description	Rabbit monoclonal [EP1933Y] to ALDH1A1 - C-terminal
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, WB, IP, Flow Cyt, IHC-P
Species reactivity	Reacts with: Mouse, Human Does not react with: Rat
Immunogen	Synthetic peptide within Human ALDH1A1 aa 300-400 (C terminal). The exact sequence is proprietary.
Positive control	WB: HepG2 and NIH/3T3 cell lysate; Human small intestine and mouse liver tissue lysate. IHC: Human liver, kidney, lung and brain tissue. ICC/IF: HepG2 cells. Flow Cyt: HepG2 cells.
General notes	Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents This product is a recombinant rabbit monoclonal antibody.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 40% Glycerol, 0.1% BSA, 9.85% Tris glycine
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	EP1933Y
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab52492** in the following tested applications.

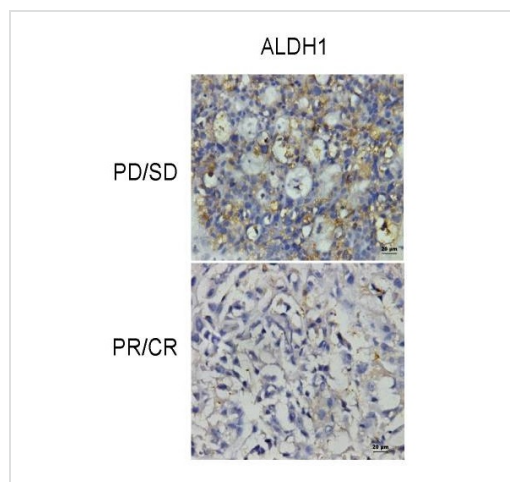
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★★	1/100 - 1/250.
WB	★★★★☆	1/500 - 1/2000. Detects a band of approximately 55 kDa (predicted molecular weight: 55 kDa).
IP		1/30.
Flow Cyt		1/1000. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IHC-P	★★★★☆	Use at an assay dependent concentration.

Target

Function	Binds free retinal and cellular retinol-binding protein-bound retinal. Can convert/oxidize retinaldehyde to retinoic acid.
Pathway	Cofactor metabolism; retinol metabolism.
Sequence similarities	Belongs to the aldehyde dehydrogenase family.
Cellular localization	Cytoplasm.

Images



Tumor tissues of primary invasive ductal carcinomas of the breast were obtained from 192 female patients with stage IIB and III prior to pre-operative neoadjuvant chemotherapy.

(progressive or stable disease, PD/SD)

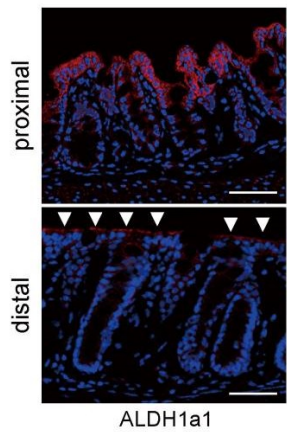
(partial or complete remission, PR/CR)

The level of ALDH1 was tested by immunohistochemistry staining in paraffin-embedded tissue sections. Rabbit monoclonal ALDH1A1 antibody (ab52492, Abcam) used at a 1:100 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ALDH1A1 antibody

[EP1933Y] - C-terminal (ab52492)

Gong et al PLoS One. 2010 Dec 20;5(12):e15630. doi: 10.1371/journal.pone.0015630. Fig 1.



ALDH1a1

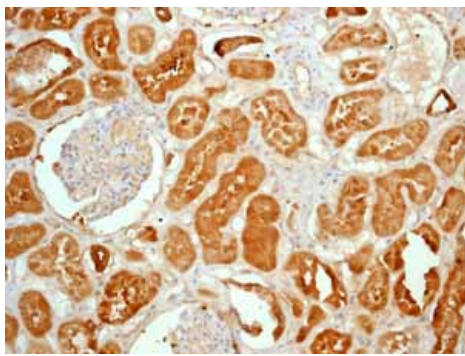
Immunohistochemistry (Frozen sections) - Anti-ALDH1A1 antibody [EP1933Y] - C-terminal (ab52492)

Matsumoto et al 2016 Aug 26;11(8):e0162049. doi: 10.1371/journal.pone.0162049. eCollection 2016. Fig 2.

Sections of the proximal (top) and distal (bottom) mouse colon were assayed for protein expression of ALDH1A1.

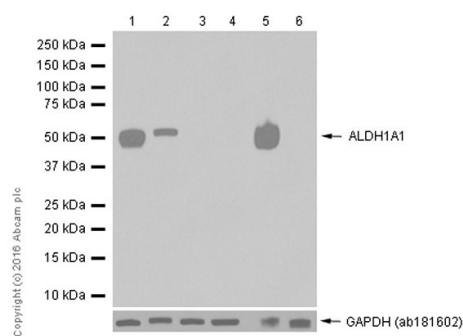
Signals yielded by immunohistochemical staining (red) are shown in merged images with DAPI staining (blue). Representative data are shown for three independent experiments. Arrowheads show positive cells for ALDH1A1 in the distal colon. Scale bars, 50 μ m.

Colonic tissues were fixed overnight at 4°C in 4% paraformaldehyde, sequentially dehydrated in 10, 15 and 20% sucrose in PBS, and embedded in OCT compound. Colonic organoids were fixed together with surrounding collagen type I gel and processed in the same manner. Frozen sections of 8- μ m thickness were subjected to immunohistochemistry using ab52492.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ALDH1A1 antibody [EP1933Y] - C-terminal (ab52492)

Immunohistochemical analysis of Formalin/PFA-fixed paraffin-embedded normal human kidney tissue sections labeling ALDH1A1 with ab52492.



Western blot - Anti-ALDH1A1 antibody [EP1933Y] - C-terminal (ab52492)

All lanes : Anti-ALDH1A1 antibody [EP1933Y] - C-terminal (ab52492) at 1/1000 dilution

Lane 1 : HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate

Lane 2 : Human small intestine tissue lysate

Lane 3 : PC-3 (Human prostate adenocarcinoma epithelial cell) whole cell lysate

Lane 4 : MCF-7 (Human breast adenocarcinoma epithelial cell) whole cell lysate

Lane 5 : Mouse liver tissue lysate

Lane 6 : NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate

Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/2000 dilution

Predicted band size: 55 kDa

Observed band size: 55 kDa

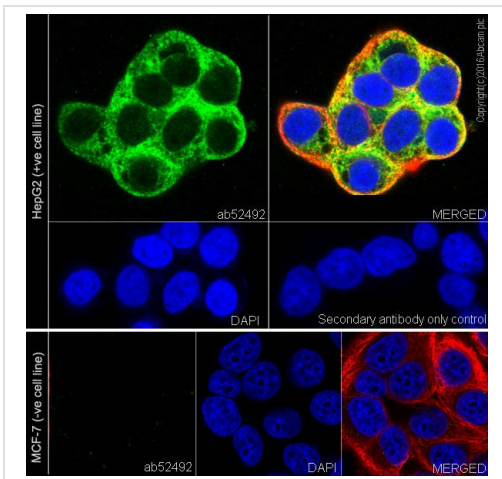
Exposure time: 1 minute

Blocking/Diluting buffer 5% NFDm/TBST

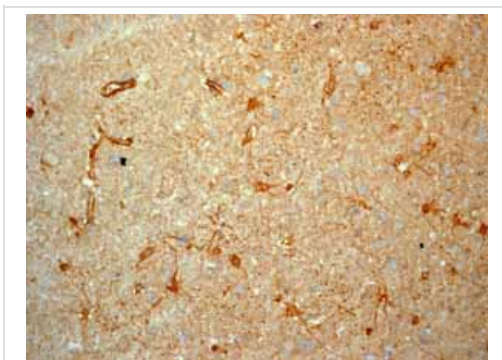
Immunocytochemistry/ Immunofluorescence analysis of HepG2 (Human liver hepatocellular carcinoma cell line) cells labeling ALDH1A1 with ab52492 at 1/500 dilution (4 µg/ml).

Cells were fixed in 100% methanol. [ab150077](#), an AlexaFluor[®]488 Goat anti-Rabbit secondary antibody was used at 1/1000 dilution (2 µg/ml). [ab195889](#), Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®] 594) was used to counterstain at 1/200 dilution (2.5 µg/ml). DAPI was used as nuclear counterstain. Confocal image showing cytoplasmic staining on HepG2 cell line.

Negative control: No staining on MCF-7 cell line.

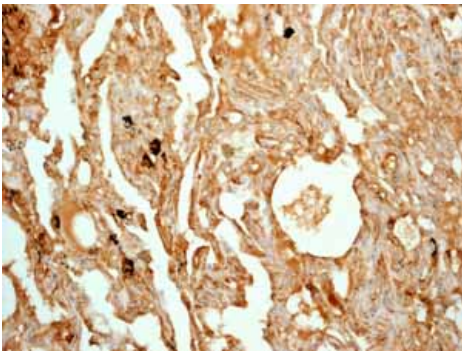


Immunocytochemistry/ Immunofluorescence - Anti-ALDH1A1 antibody [EP1933Y] - C-terminal (ab52492)



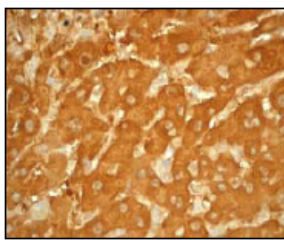
Immunohistochemical analysis of Formalin/PFA-fixed paraffin-embedded normal human brain tissue sections labeling ALDH1A1 with ab52492.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ALDH1A1 antibody [EP1933Y] - C-terminal (ab52492)



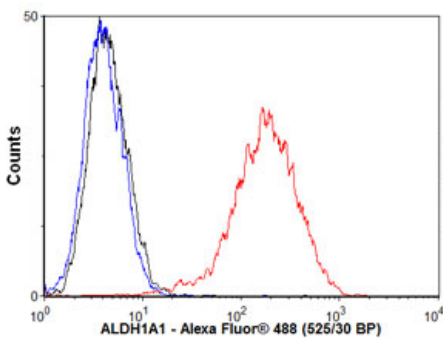
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ALDH1A1 antibody [EP1933Y] - C-terminal (ab52492)

Immunohistochemical analysis of Formalin/PFA-fixed paraffin-embedded normal human lung tissue sections labeling ALDH1A1 with ab52492.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ALDH1A1 antibody [EP1933Y] - C-terminal (ab52492)

Immunohistochemical analysis of paraffin-embedded human liver tissue sections labeling ALDH1A1 with ab52492 at 1/100 dilution.



Flow Cytometry - Anti-ALDH1A1 antibody [EP1933Y] - C-terminal (ab52492)

Overlay histogram showing HepG2 (Human liver hepatocellular carcinoma cell line) cells stained with ab52492 (red line).

The cells were fixed with 80% methanol (5 minutes) and then permeabilized with 0.1% PBS-Tween for 20 minutes. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab52492, 1/1000 dilution) for 30 minutes at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) (ab150077) at 1/2000 dilution for 30 minutes at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10⁶ cells) used under the same conditions. Unlabeled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

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