

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

KO 評価済 リコンビナント RabMAb

★★★★☆ 22 Abreviews 170 References 画像数 14

#### 製品の概要

製品名	Anti-ALDH1A1 antibody [EP1933Y] - C-terminal
製品の詳細	Rabbit monoclonal [EP1933Y] to ALDH1A1 - C-terminal
由来種	Rabbit
特異性	The mouse recommendation is based on the WB results. We do not guarantee IHC-P for mouse.
アプリケーション	<b>適用あり:</b> Flow Cyt (Intra), ICC/IF, WB, IP, IHC-P
種交差性	<b>交差種:</b> Mouse, Human
免疫原	Synthetic peptide within Human ALDH1A1 aa 300-400 (C terminal). The exact sequence is proprietary. Database link: <a href="#">P00352</a>
ポジティブ・コントロール	WB: HepG2 and NIH/3T3 cell lysate; Human small intestine and mouse liver tissue lysate. IHC: Human liver, kidney, lung and brain tissue, human breast carcinoma. ICC/IF: HepG2 cells. Flow Cyt (intra): HepG2 cells. IP: HepG2 cell lysate
特記事項	<p>The mouse recommendation is based on the WB results. <b>We do not guarantee IHC-P for mouse.</b></p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.</p>

#### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

	term. Avoid freeze / thaw cycle.
バッファー	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EP1933Y
アイソタイプ	IgG

## アプリケーション

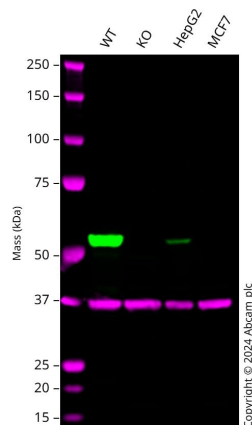
**The Abpromise guarantee**      **Abpromise保証は、**次のテスト済みアプリケーションにおけるab52492の使用に適用されます  
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		1/20. For unpurified use at 1/1000. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★ (3)	1/100 - 1/250.
WB	★★★★★ (11)	1/500 - 1/2000. Detects a band of approximately 55 kDa (predicted molecular weight: 55 kDa).
IP		1/20 - 1/30.
IHC-P	★★★★★ (5)	1/50. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See <b>IHC antigen retrieval protocols</b> .  The mouse recommendation is based on the WB results. We do not guarantee IHC-P for mouse.

## ターゲット情報

機能	Binds free retinal and cellular retinol-binding protein-bound retinal. Can convert/oxidize retinaldehyde to retinoic acid.
パスウェイ	Cofactor metabolism; retinol metabolism.
配列類似性	Belongs to the aldehyde dehydrogenase family.
細胞内局在	Cytoplasm.

## 画像



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

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

**Lane 1 :** Wild-type A549 cell lysate

**Lane 2 :** ALDH1A1 knockout A549 cell lysate

**Lane 3 :** HepG2 cell lysate

**Lane 4 :** MCF7 cell lysate

Lysates/proteins at 20 µg per lane.

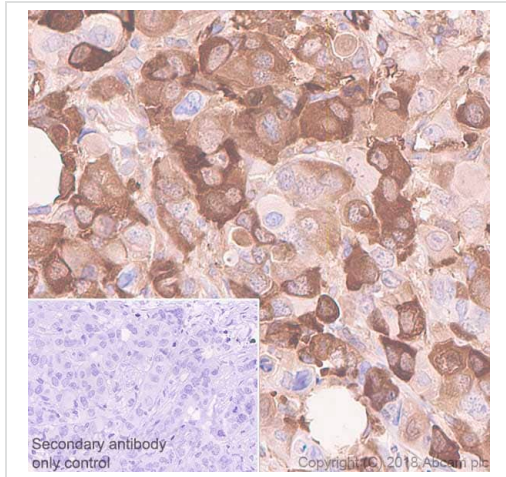
### Secondary

**All lanes :** Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

**Predicted band size:** 55 kDa

**Observed band size:** 55 kDa

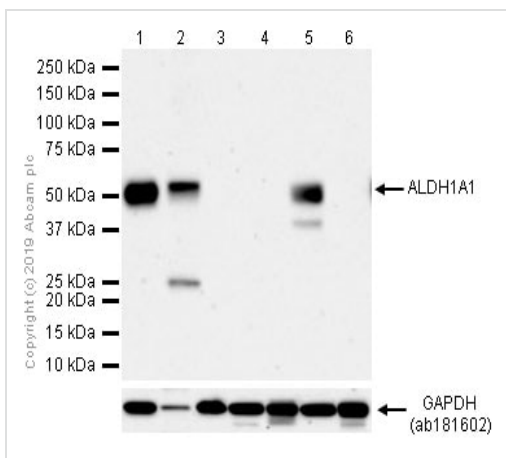
Western blot: Anti-ALDH1A1 antibody [EP1933Y] (ab52492) staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] ([ab8245](#)) loading control staining at 1/20000 dilution, shown in magenta. In Western blot, ab52492 was shown to bind specifically to ALDH1A1. A band was observed at 55 kDa in wild-type A549 cell lysates with no signal observed at this size in ALDH1A1 knockout cell line. To generate this image, wild-type and ALDH1A1 knockout A549 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



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

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue sections labeling ALDH1A1 with purified ab52492 at 1/50 dilution (3.54 µg/ml). Perform heat mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody.

Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



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

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

**Lane 1 :** HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysates at 20 µg

**Lane 2 :** Human small intestine lysates

**Lane 3 :** PC-3 (Human prostate adenocarcinoma epithelial cell) whole cell lysates at 20 µg

**Lane 4 :** MCF-7 (Human breast adenocarcinoma epithelial cell) whole cell lysates at 20 µg

**Lane 5 :** Mouse liver lysates at 20 µg

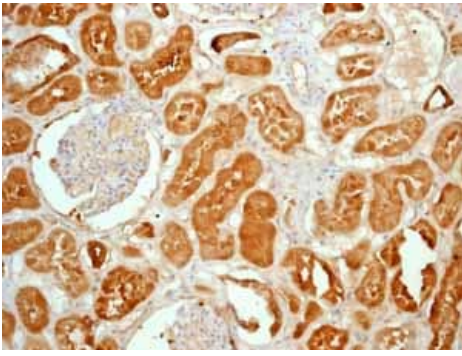
**Lane 6 :** NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates at 20 µg

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

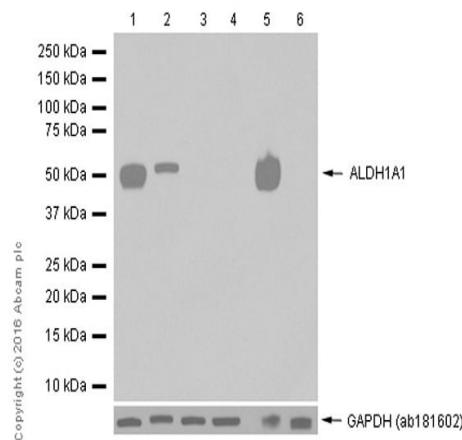
**Predicted band size:** 55 kDa

**Observed band size:** 55 kDa



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 (unpurified).



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

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

**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

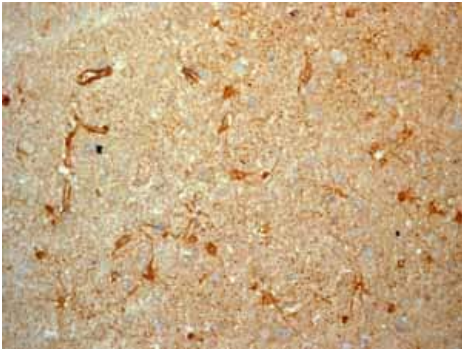
**All lanes :** Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/2000 dilution

**Predicted band size:** 55 kDa

**Observed band size:** 55 kDa

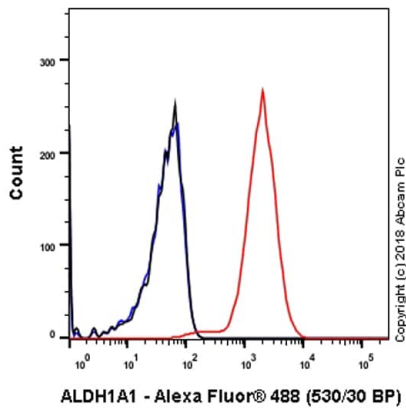
**Exposure time:** 1 minute

Blocking/Diluting buffer 5% NFDM/TBST



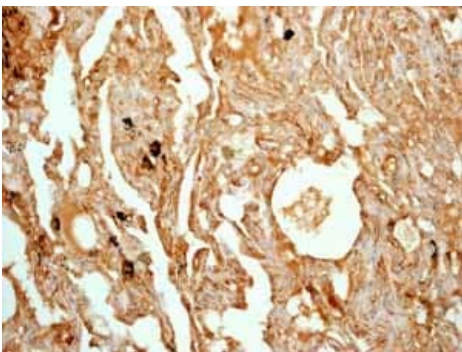
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ALDH1A1 antibody [EP1933Y] - C-terminal (ab52492)

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



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

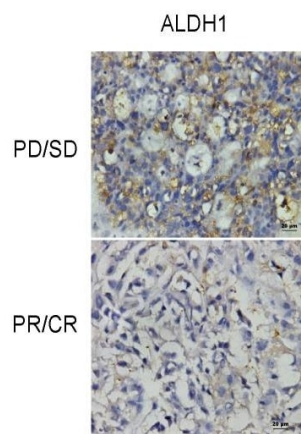
Intracellular Flow Cytometry analysis of HepG2 (Human hepatocellular carcinoma epithelial cell) cells labeling ALDH1A1 with purified ab52492 at 1/20 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



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 (unpurified).





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

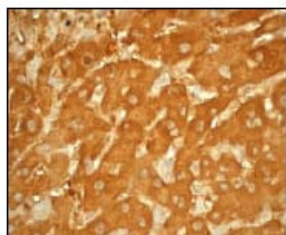
Gong et al PLoS One. 2010 Dec 20;5(12):e15630. doi: 10.1371/journal.pone.0015630. Fig 1. Reproduced under the Creative Commons license <http://creativecommons.org/licenses/by/4.0/>

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)

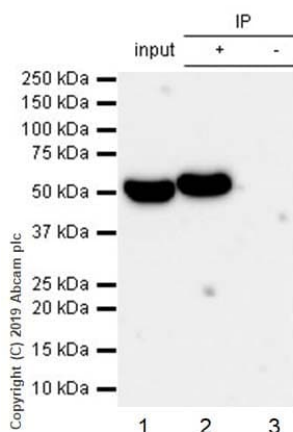
(partial or complete remission, PR/CR)

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



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 (unpurified) at 1/100 dilution.



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

ab52492 (purified) at 1/20 dilution (2μg) immunoprecipitating ALDH1A1 in HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysates.

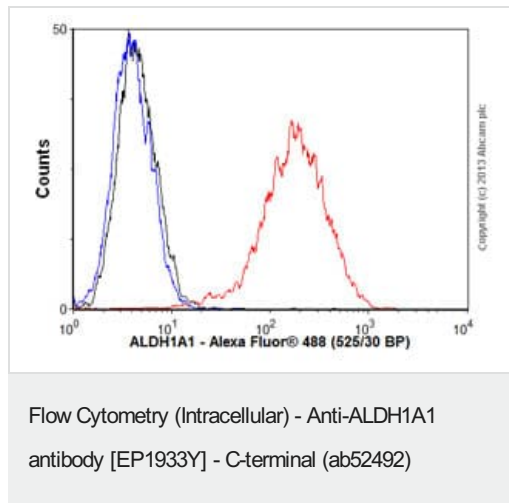
**Lane 1:** HepG2 whole cell lysates 10μg.

**Lane 2:** ab52492 IP in HepG2 whole cell lysates.

**Lane 3:** Rabbit monoclonal IgG (**ab172730**) instead of ab52492 in HepG2 whole cell lysates.

For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used at 1/1000 dilution.

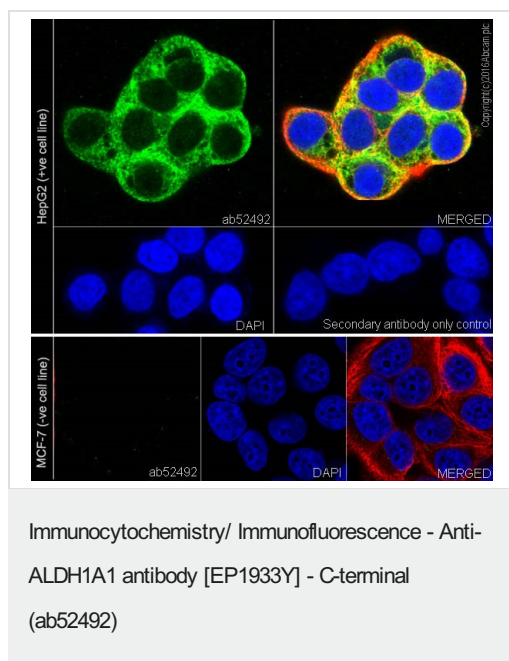
Blocking and diluting buffer: 5% NFDM/TBST.



Overlay histogram showing HepG2 (Human liver hepatocellular carcinoma cell line) cells stained with ab52492 (unpurified) (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) (0.1 µg/1x10<sup>6</sup> 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.



Immunocytochemistry/ Immunofluorescence analysis of HepG2 (Human liver hepatocellular carcinoma cell line) cells labeling ALDH1A1 with ab52492 (purified) 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.



### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

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

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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