


## Product datasheet

# Anti-Aldehyde dehydrogenase 10 antibody [EPR15425(B)] ab184171

**KO VALIDATED** Recombinant RabMAB<sup>®</sup>

★★★★☆ **1 Abreviews** **6 Images**

### Overview

<b>Product name</b>	Anti-Aldehyde dehydrogenase 10 antibody [EPR15425(B)]
<b>Description</b>	Rabbit monoclonal [EPR15425(B)] to Aldehyde dehydrogenase 10
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF, Flow Cyt (Intra)
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse 
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	HeLa, A549, 293T and U87-MG cell lysates; A549 and HepG2 cells.
<b>General notes</b>	<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>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR15425(B)

Isotype

IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab184171 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
WB	★ ★ ★ ★ ☆ (1)	1/1000 - 1/10000. Detects a band of approximately 55 kDa (predicted molecular weight: 55 kDa).
ICC/IF		1/250.
Flow Cyt (Intra)		1/170. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

## Target

### Function

Catalyzes the oxidation of long-chain aliphatic aldehydes to fatty acids. Active on a variety of saturated and unsaturated aliphatic aldehydes between 6 and 24 carbons in length.

### Involvement in disease

Defects in ALDH3A2 are the cause of Sjogren-Larsson syndrome (SLS) [MIM:270200]. SLS is an autosomal recessive neurocutaneous disorder characterized by a combination of severe mental retardation, spastic di- or tetraplegia and congenital ichthyosis (increased keratinization). Ichthyosis is usually evident at birth, neurologic symptoms appear in the first or second year of life. Most patients have an IQ of less than 60. Additional clinical features include glistening white spots on the retina, seizures, short stature and speech defects.

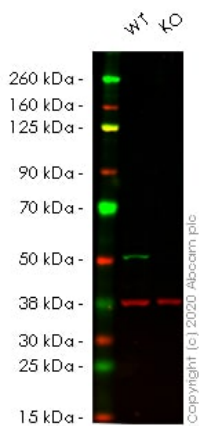
### Sequence similarities

Belongs to the aldehyde dehydrogenase family.

### Cellular localization

Endoplasmic reticulum membrane.

## Images



Western blot - Anti-Aldehyde dehydrogenase 10 antibody [EPR15425(B)] (ab184171)

**All lanes** : Anti-Aldehyde dehydrogenase 10 antibody [EPR15425(B)] (ab184171) at 1/1000 dilution

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

**Lane 2** : ALDH3A2 knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

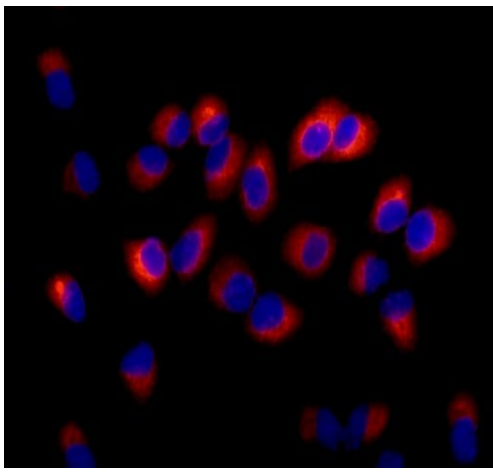
Performed under reducing conditions.

**Predicted band size:** 55 kDa

**Observed band size:** 50 kDa

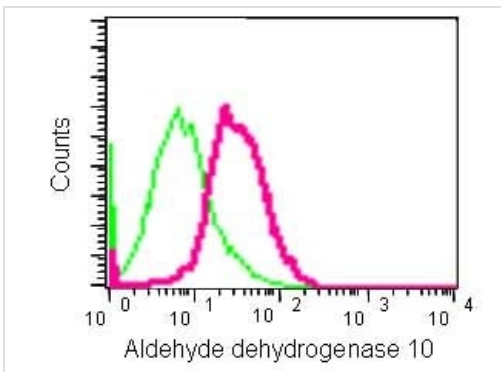
**Lanes 1 - 2:** Merged signal (red and green). Green - ab184171 observed at 50 kDa. Red - loading control **ab8245** (Mouse anti-GAPDH antibody [6C5]) observed at 37 kDa.

ab184171 was shown to react with ALDH3A2 in wild-type HeLa cells in Western blot with loss of signal observed in ALDH3A2 knockout cell line **ab265427** (ALDH3A2 knockout cell lysate **ab257829**). Wild-type and ALDH3A2 knockout HeLa cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween®) before incubation with ab184171 and **ab8245** (Mouse anti-GAPDH antibody [6C5]) overnight at 4 °C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.



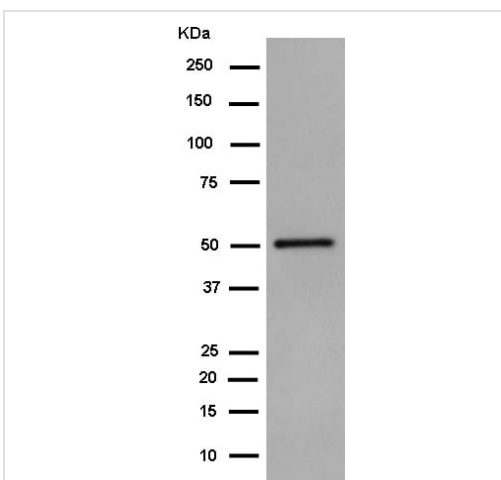
Immunocytochemistry/ Immunofluorescence - Anti-Aldehyde dehydrogenase 10 antibody [EPR15425(B)] (ab184171)

Immunofluorescence analysis of 4% paraformaldehyde fixed A549 cells labeling Aldehyde dehydrogenase 10 using ab184171 at 1/250 dilution (red). A Goat anti rabbit IgG (Alexa Fluor555) at 1/200 dilution was used as secondary antibody. Counterstain: DAPI (blue).



Flow Cytometry (Intracellular) - Anti-Aldehyde dehydrogenase 10 antibody [EPR15425(B)] (ab184171)

Intracellular flow cytometric analysis of 2% paraformaldehyde fixed HepG2 cells labeling Aldehyde dehydrogenase 10 using ab184171 at 1/170 dilution (red). A Goat anti rabbit IgG (FITC) at 1/150 dilution was used as secondary antibody. Isotype control: Rabbit monoclonal IgG (green).



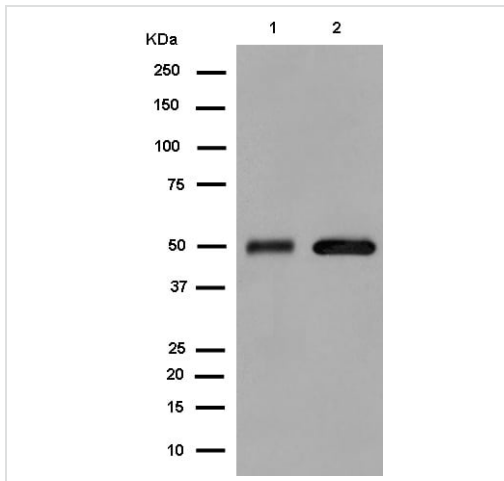
Western blot - Anti-Aldehyde dehydrogenase 10 antibody [EPR15425(B)] (ab184171)

Anti-Aldehyde dehydrogenase 10 antibody [EPR15425(B)] (ab184171) at 1/10000 dilution + U87-MG cell lysate at 20  $\mu$ g

**Secondary**

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size: 55 kDa**



Western blot - Anti-Aldehyde dehydrogenase 10 antibody [EPR15425(B)] (ab184171)

**All lanes :** Anti-Aldehyde dehydrogenase 10 antibody [EPR15425(B)] (ab184171) at 1/2000 dilution

**Lane 1 :** A549 cell lysate

**Lane 2 :** 293T cell lysate



Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 55 kDa

Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

Anti-Aldehyde dehydrogenase 10 antibody [EPR15425(B)] (ab184171)

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

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