


## Product datasheet

# Anti-Aconitase 1/ACO1 antibody [EPR7226(2)] ab183721

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

4 Images

### Overview

<b>Product name</b>	Anti-Aconitase 1/ACO1 antibody [EPR7226(2)]
<b>Description</b>	Rabbit monoclonal [EPR7226(2)] to Aconitase 1/ACO1
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Human fetal liver tissue lysate, HepG2, T.T, U20S, HeLa and HEK-293 whole cell lysate
<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>	EPR7226(2)
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab183721 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		1/1000 - 1/20000. Predicted molecular weight: 98 kDa.

## Target

### Function

Iron sensor. Binds a 4Fe-4S cluster and functions as aconitase when cellular iron levels are high. Functions as mRNA binding protein that regulates uptake, sequestration and utilization of iron when cellular iron levels are low. Binds to iron-responsive elements (IRES) in target mRNA species when iron levels are low. Binding of a 4Fe-4S cluster precludes RNA binding. Catalyzes the isomerization of citrate to isocitrate via cis-aconitate.

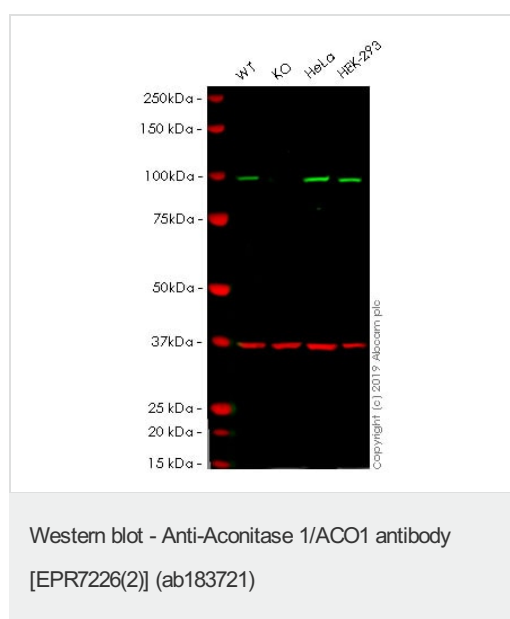
### Sequence similarities

Belongs to the aconitase/IPM isomerase family.

### Cellular localization

Cytoplasm.

## Images



**All lanes :** Anti-Aconitase 1/ACO1 antibody [EPR7226(2)] (ab183721) at 1 µg/ml

**Lane 1 :** Wild-type U20S whole cell lysate

**Lane 2 :** ACO1 knockout U20S whole cell lysate

**Lane 3 :** HeLa whole cell lysate

**Lane 4 :** HEK-293 whole cell lysate

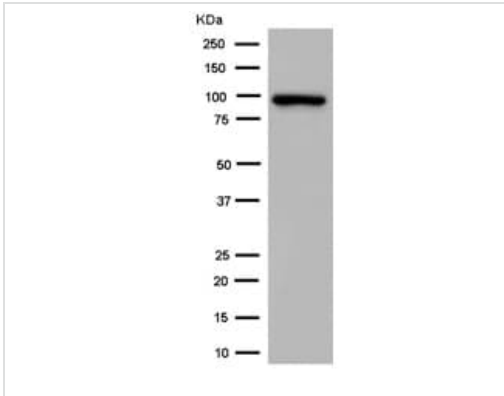
Lysates/proteins at 20 µg per lane.

**Predicted band size:** 98 kDa

**Lanes 1 - 4:** Merged signal (red and green). Green - ab183721 observed at 98 kDa. Red - loading control, [ab9484](#), observed at 37 kDa.

ab183721 was shown to specifically react with ACO1 in wild-type U20S cells as signal was lost in ACO1 knockout cells. Wild-type and ACO1 knockout samples were subjected to SDS-PAGE. Ab183721 and [ab9484](#) (Mouse anti-GAPDH loading control) were

incubated overnight at 4°C at 1 ug/ml and 1/20000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed [ab216772](#) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed [ab216777](#) secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



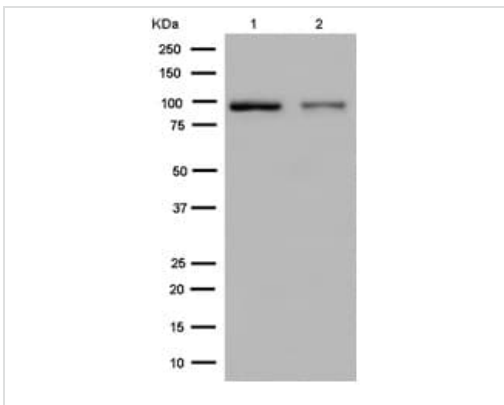
Western blot - Anti-Aconitase 1/ACO1 antibody [EPR7226(2)] (ab183721)

Anti-Aconitase 1/ACO1 antibody [EPR7226(2)] (ab183721) at 1/20000 dilution + Human fetal liver tissue lysate at 20 µg

### Secondary

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

**Predicted band size:** 98 kDa



Western blot - Anti-Aconitase 1/ACO1 antibody [EPR7226(2)] (ab183721)

**All lanes :** Anti-Aconitase 1/ACO1 antibody [EPR7226(2)] (ab183721) at 1/1000 dilution

**Lane 1 :** HepG2 cell lysate

**Lane 2 :** T.T cell lysate





Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/5000 dilution

**Predicted band size:** 98 kDa

Why choose a recombinant antibody?

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

Anti-Aconitase 1/ACO1 antibody [EPR7226(2)]  
(ab183721)

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

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