

## Product datasheet

# Anti-CD31 antibody [EPR17260-265] ab182982

Recombinant RabMAb

[1 References](#) [4 Images](#)

### Overview

<b>Product name</b>	Anti-CD31 antibody [EPR17260-265]
<b>Description</b>	Rabbit monoclonal [EPR17260-265] to CD31
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP <b>Unsuitable for:</b> Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: His-tagged mouse CD31 recombinant protein (aa18-590); bEnd.3 cell lysate; mouse platelet and lung lysate. IP: bEnd.3 whole cell lysate.
<b>General notes</b>	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> .

### 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: PBS, 0.05% BSA, 40% Glycerol (glycerin, glycerine)
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR17260-265
<b>Isotype</b>	IgG

### Applications

The **Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab182982 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. Detects a band of approximately 110-130 kDa (predicted molecular weight: 81 kDa). Treat samples with PNGase F or phosphatase to confirm the specificity of bands if necessary.  The observed band size of CD31 may not the same as predicted MWs in WB due to the different forms and modifications of CD31.
IP		1/40.

**Application notes** Is unsuitable for Flow Cyt.

## Target

**Function** Induces susceptibility to atherosclerosis (By similarity). Cell adhesion molecule which is required for leukocyte transendothelial migration (TEM) under most inflammatory conditions. Tyr-690 plays a critical role in TEM and is required for efficient trafficking of PECAM1 to and from the lateral border recycling compartment (LBRC) and is also essential for the LBRC membrane to be targeted around migrating leukocytes. Prevents phagocyte ingestion of closely apposed viable cells by transmitting 'detachment' signals, and changes function on apoptosis, promoting tethering of dying cells to phagocytes (the encounter of a viable cell with a phagocyte via the homophilic interaction of PECAM1 on both cell surfaces leads to the viable cell's active repulsion from the phagocyte. During apoptosis, the inside-out signaling of PECAM1 is somehow disabled so that the apoptotic cell does not actively reject the phagocyte anymore. The lack of this repulsion signal together with the interaction of the eat-me signals and their respective receptors causes the attachment of the apoptotic cell to the phagocyte, thus triggering the process of engulfment). Isoform Delta15 is unable to protect against apoptosis. Modulates BDKRB2 activation. Regulates bradykinin- and hyperosmotic shock-induced ERK1/2 activation in human umbilical cord vein cells (HUVEC).

**Tissue specificity** Expressed on platelets and leukocytes and is primarily concentrated at the borders between endothelial cells. Isoform Long predominates in all tissues examined. Isoform Delta12 is detected only in trachea. Isoform Delta14-15 is only detected in lung. Isoform Delta14 is detected in all tissues examined with the strongest expression in heart. Isoform Delta15 is expressed in brain, testis, ovary, cell surface of platelets, human umbilical vein endothelial cells (HUVECs), Jurkat T-cell leukemia, human erythroleukemia (HEL) and U937 histiocytic lymphoma cell lines (at protein level).

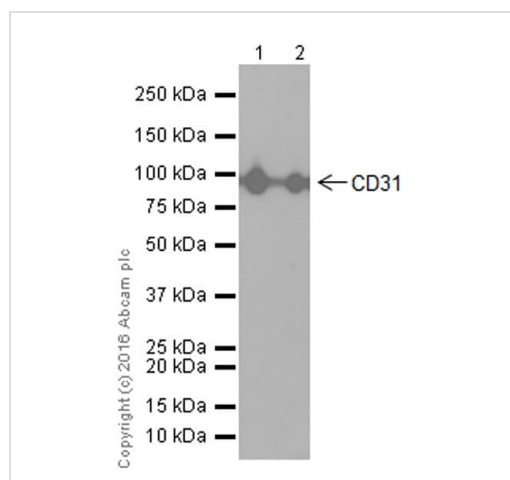
**Sequence similarities** Contains 6 Ig-like C2-type (immunoglobulin-like) domains.

**Domain** The Ig-like C2-type domains 2 and 3 contribute to formation of the complex with BDKRB2 and in regulation of its activity.

**Post-translational modifications** Phosphorylated on Ser and Tyr residues after cellular activation. In endothelial cells Fyn mediates mechanical-force (stretch or pull) induced tyrosine phosphorylation.

**Cellular localization** Membrane. Cell junction. Localizes to the lateral border recycling compartment (LBRC) and recycles from the LBRC to the junction in resting endothelial cells and Cell junction. Localizes to the lateral border recycling compartment (LBRC) and recycles from the LBRC to the junction in resting endothelial cells.

## Images



Western blot - Anti-CD31 antibody [EPR17260-265] (ab182982)

**Lane 1 :** Anti-CD31 antibody [EPR17260-265] (ab182982) at 1/20000 dilution

**Lane 2 :** Anti-CD31 antibody [EPR17260-265] (ab182982) at 1/100000 dilution

**All lanes :** His-tagged mouse CD31 recombinant protein (aa18-590) 10 ng

### Secondary

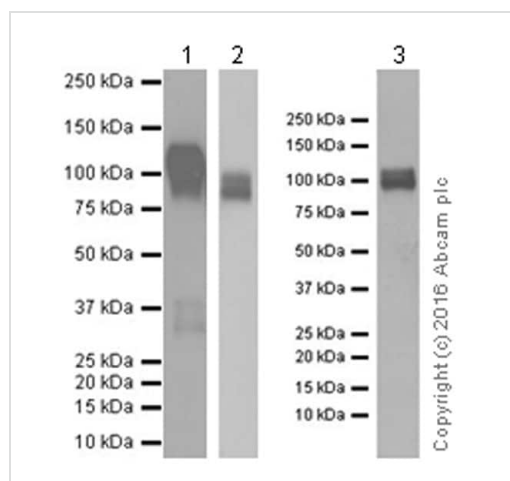
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Developed using the ECL technique.

**Predicted band size:** 81 kDa

**Observed band size:** 100 kDa

**Exposure time:** 3 minutes



Western blot - Anti-CD31 antibody [EPR17260-265] (ab182982)

**Lanes 1-2 :** Anti-CD31 antibody [EPR17260-265] (ab182982) at 1/1000 dilution

**Lane 3 :** Anti-CD31 antibody [EPR17260-265] (ab182982) at 1/2000 dilution

**Lane 1 :** Mouse platelet lysate

**Lane 2 :** Mouse lung lysate

**Lane 3 :** bEnd.3 (mouse brain endothelioma) whole cell lysate

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Developed using the ECL technique.

**Predicted band size:** 81 kDa

**Observed band size:** 110-130 kDa

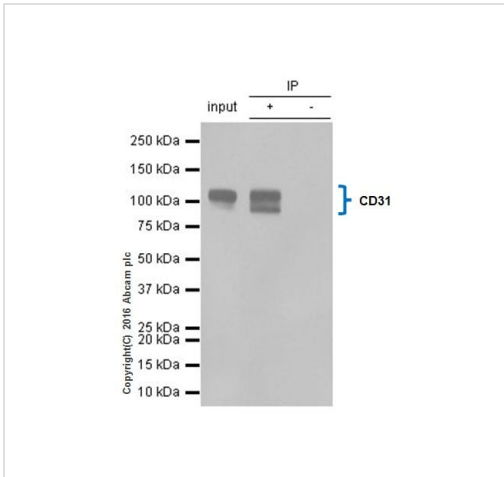
Blocking: 5% NFDM /TBST.

Exposure time:

Lane 1: 3 minutes

Lanes 2-3: 1 second

The expression MW observed is consistent with what has been described in the literature (PMID: 18388311; 12433657).



Immunoprecipitation - Anti-CD31 antibody  
[EPR17260-265] (ab182982)

CD31 was immunoprecipitated from 1 mg bEnd.3 (mouse brain endothelioma cell line) whole cell lysate with ab182982 at 1/40 dilution. Western blot was performed from the immunoprecipitate using ab182982 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/10000 dilution.

Lane 1: bEnd.3 whole cell lysate 10 µg (Input).


Lane 2: ab182982 IP in bEnd.3 whole cell lysate (+).

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab182982 in bEnd.3 whole cell lysate (-)

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 seconds.

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-CD31 antibody [EPR17260-265] (ab182982)

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

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