abcam

Product datasheet

Anti-CD31 antibody [EPR17260-254] - Low endotoxin, Azide free ab224260

Recombinant RabMAb

3 Images

Overview

Product name	Anti-CD31 antibody [EPR17260-254] - Low endotoxin, Azide free
Description	Rabbit monoclonal [EPR17260-254] to CD31 - Low endotoxin, Azide free
Host species	Rabbit
Specificity	Not suitable for FC-Mouse.
Tested applications	**Suitable for:** WB, Sandwich ELISA, IP
Species reactivity	**Reacts with:** Mouse, Rat
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse CD31 active protein; mouse and rat platelet and lung lysates; bEnd.3 whole cell lysate. IP: bEnd.3 whole cell lysate.
General notes	ab224260 is the carrier-free version of **ab213175**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit

monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Our **Low endotoxin, azide-free formats** have low endotoxin level (≤ 1 EU/ml, determined by the LAL assay) and are free from azide, to achieve consistent experimental results in functional assays.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR17260-254
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab224260 in the following tested applications.

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

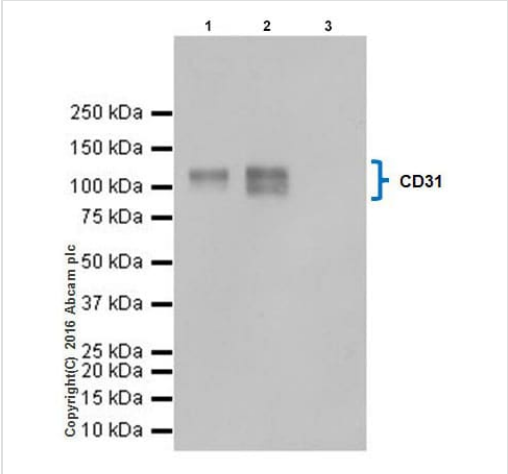
Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Treat samples with PNGase F or phosphatase to confirm the specificity of bands if necessary. The observed band size of CD31 may not the same as predicted MWs in WB due to the different forms and modifications of CD31. Ms Isoform 1-4: 69.8-81.3 kDa (predicted)
Sandwich ELISA		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.

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



Immunoprecipitation - Anti-CD31 antibody [EPR17260-254] - Low endotoxin, Azide free (ab224260)

CD31 was immunoprecipitated from 1 mg of bEnd.3 (Mouse brain endothelioma cell line) whole cell lysate with **ab213175** at 1/40 dilution.

Western blot was performed from the immunoprecipitate using **ab213175** at 1/1000 dilution.

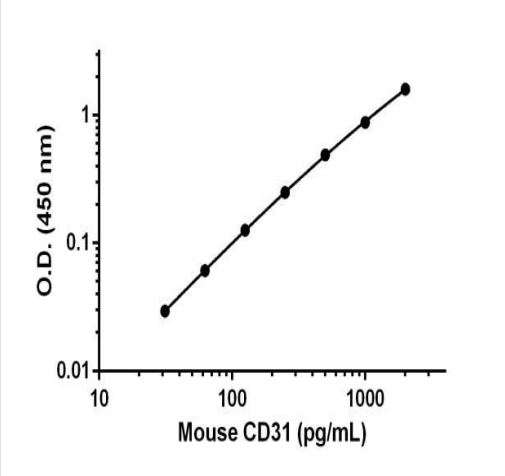
VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10000 dilution.

Lane 1: bEnd.3 whole cell lysate 10µg (Input). Lane 2: **ab213175** IP in bEnd.3 whole cell lysate. Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab213175** in bEnd.3 whole cell lysate.

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

Exposure time: 10 seconds.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab213175**).



Sandwich ELISA - Anti-CD31 antibody [EPR17260-254] - Low endotoxin, Azide free (ab224260)

This ELISA data was generated using the same anti-CD31 antibody clone [EPR17260-254] in a different buffer formulation (cat# **ab213175**).

Example of mouse CD31 standard curve in 1X Cell Extraction Buffer PTR using recombinant CD31 antibody (**ab213175**) and a recombinant monoclonal antibody. Background-subtracted data values (mean +/- SD) are graphed.

For a matched antibody pair set, see Mouse CD31 Matched Antibody Pair Kit (**ab212065**).

For a complete ELISA kit, see Mouse CD31 ELISA kit (**ab204527**).

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