abcam

Product datasheet

Anti-CD31 (phospho Y713) antibody [EPR8079(2)] - C-terminal ab180175

Recombinant RabMAb

2 References 3 Images

Overview

Product name	Anti-CD31 (phospho Y713) antibody [EPR8079(2)] - C-terminal
Description	Rabbit monoclonal [EPR8079(2)] to CD31 (phospho Y713) - C-terminal
Host species	Rabbit
Tested applications	**Suitable for:** WB, Dot blot **Unsuitable for:** IHC-P or IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide within Human CD31 aa 700 to the C-terminus (C terminal) (phospho Y713) (Cysteine residue). The exact sequence is proprietary. Database link: **P16284**
Positive control	WB: Pervanadate-treated Jurkat cell lysate. Dot Blot: CD31 (pY713) peptide.
General notes	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**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide

	Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	EPR8079(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab180175 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 - 1/10000. Predicted molecular weight: 82 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. Hu Isoform 1-6: 79-83 kDa (predicted)
Dot blot		1/1000.

Application notes Is unsuitable for IHC-P or IP.

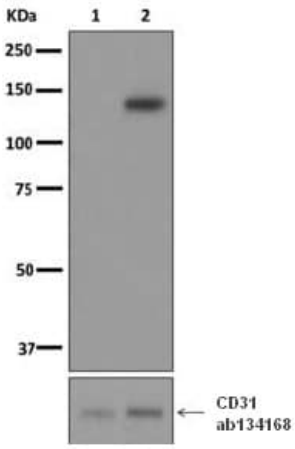
Target

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 (phospho Y713) antibody [EPR8079(2)] - C-terminal (ab180175)

All lanes : Anti-CD31 (phospho Y713) antibody [EPR8079(2)] - C-terminal (ab180175) at 1/1000 dilution

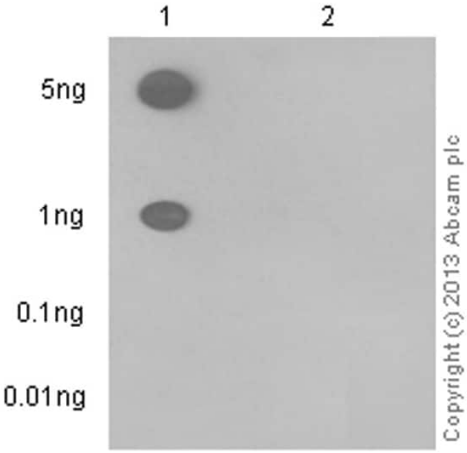
Lane 1 : Non-treated Jurkat cell lysate
Lane 2 : Pervanadate-treated Jurkat cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Standard HRP goat anti-rabbit at 1/2000 dilution

Developed using the ECL technique.

Predicted band size: 82 kDa

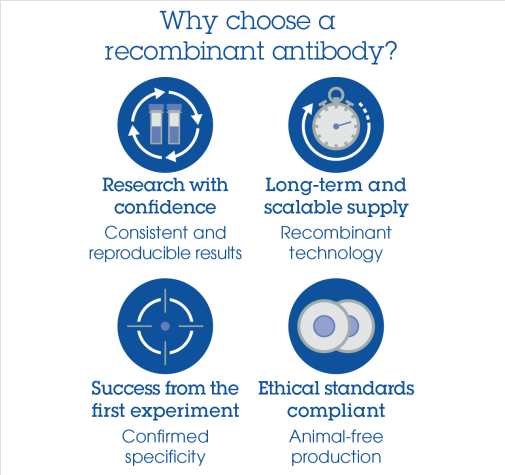


Dot Blot - Anti-CD31 (phospho Y713) antibody [EPR8079(2)] - C-terminal (ab180175)

Dot blot analysis of CD31 (pY713) peptide (Lane 1) and CD31 non-phospho peptide (Lane 2) labelling CD31 (phospho Y713) with ab180175 at a dilution of 1/1000. A Peroxidase-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody at a dilution of 1/2500.

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure time: 10 seconds.



Anti-CD31 (phospho Y713) antibody [EPR8079(2)] - C-terminal (ab180175)

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