abcam

ab187377

Anti-PECAM-1/CD31 antibody [C31.3]

Lab Essentials

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Human PECAM-1/CD31. Database link P16284
Clone number	C31.3
Purification technique	Affinity purification Protein G
Light chain type	kappa
Concentration	0.2 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC

Tested

Species	Human
Dilution info	1-2 µg/mL
Notes	Use 0.3M glycine to quench autofluorescence caused by aldehydes.

Positive Control: HUVEC cells

Flow Cyt

Tested

Species	Human
Dilution info	1-2 µg for 10^6 Cells
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

WB

Tested

Species	Human
Dilution info	1-2 µg/mL
Notes	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) Observed band size is around 130 kDa Positive Control: HUVEC and Jurkat cell lysates (ab7899); Human spleen and kidney tissue lysate. Negative Control: NIH/3T3 whole cell lysate (ab7179).

IHC-P

Tested

Species	Human
Dilution info	1-2 µg/mL
Notes	The ideal fixation time will depend on the size of the tissue block and the type of tissue, but fixation between 18–24h is suitable for most samples. Positive Control: Hu tonsil tissue Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

See full target information PECAM-1/CD31

Function	Cell adhesion molecule which is required for leukocyte transendothelial migration (TEM) under most inflammatory conditions (PubMed:17580308, PubMed:19342684). 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 (PubMed:19342684). Trans-homophilic interaction may play a role in endothelial cell-cell adhesion via cell junctions (PubMed:27958302). Heterophilic interaction with CD177 plays a role in transendothelial migration of neutrophils (PubMed:17580308). Homophilic ligation of PECAM1 prevents macrophage-mediated phagocytosis of neighboring viable leukocytes by transmitting a detachment signal (PubMed:12110892). Promotes macrophage-mediated phagocytosis of apoptotic leukocytes by tethering them to the phagocytic cells; PECAM1-mediated detachment signal appears to be disabled in apoptotic leukocytes (PubMed:12110892). Modulates bradykinin receptor BDKRB2 activation (PubMed:18672896). Regulates bradykinin- and hyperosmotic shock-induced ERK1/2 activation in endothelial cells (PubMed:18672896). Induces susceptibility to atherosclerosis (By similarity). Isoform Delta15. Does not protect against apoptosis.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

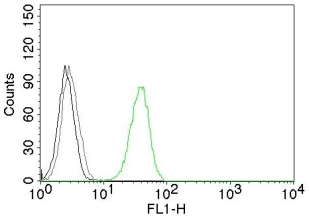
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
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5 product images

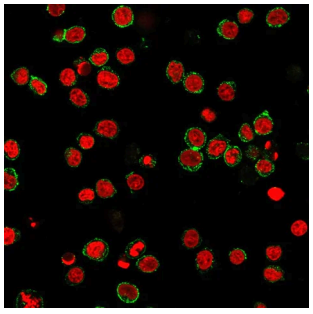


Flow Cytometry - Anti-PECAM-1/CD31 antibody [C31.3] (ab187377)

PECAM-1/CD31 Flow Cytometry staining using mouse Anti-PECAM-1/CD31 antibody

Flow Cytometry analysis of Jurkat cells labeling CD31 with ab187377 (Green).
Black: Cells alone;

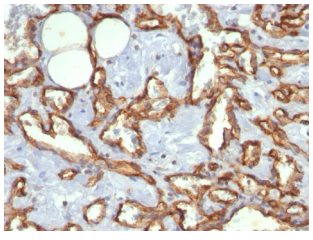
Grey: Isotype Control.



Immunocytochemistry - Anti-PECAM-1/CD31 antibody [C31.3] (ab187377)

PECAM-1/CD31 Immunocytochemistry staining using mouse Anti-PECAM-1/CD31 antibody

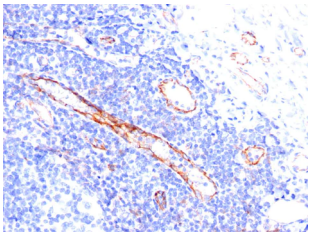
Immunocytochemistry analysis of PFA-fixed Jurkat cells labeling CD31 with ab187377 followed by Goat anti-Mouse IgG-CF488 (Green). The nuclear counterstain is Nucspot (Red).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PECAM-1/CD31 antibody [C31.3] (ab187377)

PECAM-1/CD31 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-PECAM-1/CD31 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human angiosarcoma tissue labelling CD31 with ab187377.

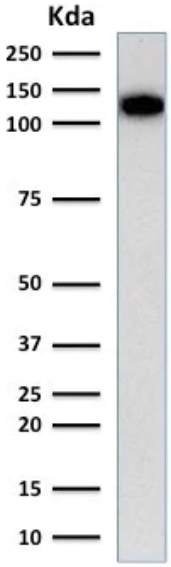


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PECAM-1/CD31 antibody [C31.3] (ab187377)

PECAM-1/CD31 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-PECAM-1/CD31 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labelling CD31 with ab187377.

Western blot - Anti-PECAM-1/CD31 antibody [C31.3] (ab187377)



PECAM-1/CD31 Western blot staining of Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate using mouse Anti-PECAM-1/CD31 antibody

All lanes:
Western blot - Anti-PECAM-1/CD31 antibody [C31.3] (ab187377) at 1 µg/mL

All lanes:
Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate

Predicted band size: 82 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.