abcam

ab218

Anti-PECAM-1/CD31 antibody [WM59]

Lab Essentials | Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	WM59
Purification technique	Affinity purification Protein A
Concentration	1.053 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	10.62 µg/mL
Notes	Use 0.3M glycine to quench autofluorescence caused by aldehydes. Positive Control: HUVEC cells

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1.062 µg/mL
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

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

Notes

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

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.

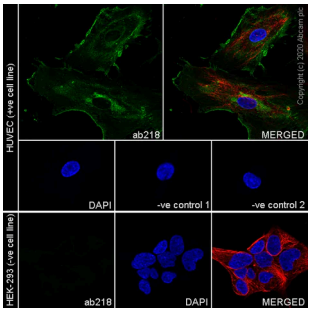
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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:
Terms & Conditions.

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2 product images



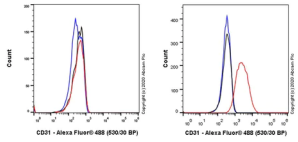
Immunocytochemistry/ Immunofluorescence - Anti-PECAM-1/CD31 antibody [WM59] (ab218)

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

Immunocytochemistry analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HUVEC cells labelling CD31 with ab218 at 1/100 dilution (10.62µg/ml), followed by ab150113 Goat Anti-mouse IgG H&L (Alexa Fluor® 488) antibody at 1/1000 (2µg/ml) dilution (Green). Confocal image showing cytoplasmic and membranous staining in HUVEC cell line. ab179513 Anti-beta Tubulin rabbit monoclonal antibody was used to counterstain tubulin at 1/500 dilution, followed by ab150080 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) at a 1/500 dilution (Red). The nuclear counterstain was DAPI (Blue).
Negative control cell: HEK-293 (PMID: 27097314).

Negative control 1: ab218 at a 1/100 dilution (10.62µg/ml) followed by ab150080 at a 1/500 dilution (4µg/ml).

Negative control 2: ab179513 at a 1/500 dilution (4µg/ml) followed by ab150113 at a 1/1000 dilution (4µg/ml).



Flow Cytometry - Anti-PECAM-1/CD31 antibody [WM59] (ab218)

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

Flow cytometric analysis of HEK 293 (human embryonic kidney epithelial cell) (Left panel) / HUVEC (human umbilical vein endothelial cell) (Right panel) cells labelling CD31 with ab218 at 1/1000 dilution (1.062µg/ml) (Red) compared with a mouse monoclonal IgG (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti mouse IgG (Alexa Fluor® 488, ab150113) at 1/2000 dilution was used as the secondary antibody.
Negative control: HEK 293 (PMID: 27097314).

Gated on viable cells.

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