abcam

ab7388

Anti-PECAM-1/CD31 antibody [MEC 7.46]

Anti-PECAM-1/CD31 antibody [MEC 7.46] (ab7388) is a rat monoclonal antibody detecting PECAM-1/CD31 in **Flow Cytometry, ICC/IF**. Suitable for **Mouse**.

- Over 130 publications
- Trusted since 2002

Lab Essentials | Recombinant

Key facts

Isotype	IgG1
Host species	Rat
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	MEC 7.46
Purification technique	Affinity purification Protein A
Specificity	The antibody reacts with the murine form of the Platelet-Endothelial Cell Adhesion Molecule. The reactivity of the antibody is restricted to the isoform of the molecule that is selectively expressed by endothelial cells. The antibody precipitates a 130 kDa molecule present on the membrane of endothelial cell presents on all mouse blood vessels both in normal and inflamed or tumor tissues. The antigen is predominantly present at the lateral borders of endothelial cells as described for human PECAM-1.
Light chain type	kappa
Concentration	0.916 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Mouse
Dilution info	1/50
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

WB

Not recommended

Species	Mouse, Human, Rat

Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Human, 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 (By similarity). Tyr-679 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 (By similarity). Trans-homophilic interaction may play a role in endothelial cell-cell adhesion via cell junctions (By similarity). Heterophilic interaction with CD177 plays a role in transendothelial migration of neutrophils (By similarity). Homophilic ligation of PECAM1 prevents macrophage-mediated phagocytosis of neighboring viable leukocytes by transmitting a detachment signal (By similarity). 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 (By similarity). Modulates bradykinin receptor BDKRB2 activation (By similarity). Regulates bradykinin- and hyperosmotic shock-induced ERK1/2 activation in endothelial cells (By similarity). Induces susceptibility to atherosclerosis (PubMed:19048083).

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 is this antibody validated in?
Anti-CD31 antibody [MEC 7.46] (ab7388) is a rat recombinant monoclonal antibody and is validated for use in Flow Cytometry (Flow Cyt), Immunocytochemistry/immunofluorescence (ICC/IF) in Mouse samples.

Trusted by the scientific community
Anti-CD31 [MEC 7.46] (ab7388) was first used in a scientific publication in 2002 and has been cited over 130 times in peer-reviewed journals.

Reviewed by scientists
Anti-CD31 [MEC 7.46] (ab7388) has over 5 independent reviews from customers.

Other related products
We have a range of other formats of antibody clone [MEC 7.46] also available for your convenience: ab7388, Carrier free - ab264486, Alexa Fluor® 488 - ab307133, Alexa Fluor® 647 - ab307262, Alexa Fluor® 594 - ab307336, PE - ab314282

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.

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

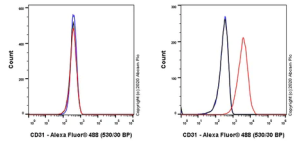
We do not recommend this combination. It is not covered by our product promise.

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.

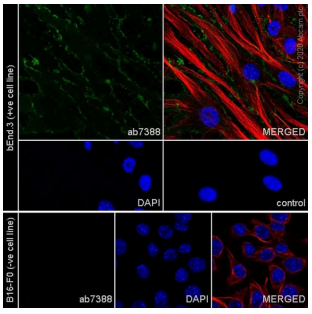
2 product images



Flow Cytometry - Anti-PECAM-1/CD31 antibody [MEC 7.46] (ab7388)

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

Flow cytometric analysis of / fixed / permeabilized B16-F0 (Mouse melanoma epithelial cell-like, Left) / bEnd.3 (Mouse brain endothelioma, Right) cells labelling CD31 with ab7388 at 1/1000 dilution (0.1µg) (Red) compared with a Rat monoclonal IgG (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat F(ab)2 Anti-Rat IgG Fc (Alexa Fluor® 488, ab150161) at 1/2000 dilution was used as the secondary antibody. Negative control: B16-F0.Gated on viable cells.



Immunocytochemistry/ Immunofluorescence - Anti-PECAM-1/CD31 antibody [MEC 7.46] (ab7388)

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

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized bEnd.3 cells labelling CD31 with ab7388 at 1/50 (19.32 µg/ml) dilution, followed by ab150157 Goat Anti-Rat IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing membranous staining in bEnd.3 cell line. Negative control: B16-F0 (PMID: 8082649) ab179513 Anti-beta Tubulin rabbit monoclonal antibody was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).
Secondary antibody only control: Secondary antibody is ab150157 Goat Anti-Rat IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

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