abcam

ab256569

# Anti-PECAM-1/CD31 antibody [MEC 13.3]

Lab Essentials | Recombinant

## Key facts

| | |
|---|---|
| **Isotype** | IgG2a |
| **Host species** | Rat |
| **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** | MEC 13.3 |
| **Purification technique** | Ion exchange chromatography |
| **Concentration** | 1 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## ICC/IF

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 21.16 µg/mL |
| **Notes** | Use 0.3M glycine to quench autofluorescence caused by aldehydes.<br>Positive Control: HUVEC cells |

### Not recommended

| | |
|---|---|
| **Species** | Human, Rat |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1.058 µg/mL |
| **Notes** | - |

### Not recommended

| | |
|---|---|
| **Species** | Human, Rat |
| **Dilution info** | - |
| **Notes** | - |

## WB

### Not recommended

| | |
|---|---|
| **Species** | Mouse, Human, Rat |
| **Dilution info** | - |
| **Notes** | - |

## IHC-P

### Not recommended

| | |
|---|---|
| **Species** | Mouse, Human, Rat |
| **Dilution info** | - |
| **Notes** | - |

## IHC-Fr

**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 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**

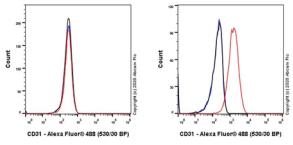
We do not recommend this combination. It is not covered by our product promise.

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.

## 2 product images

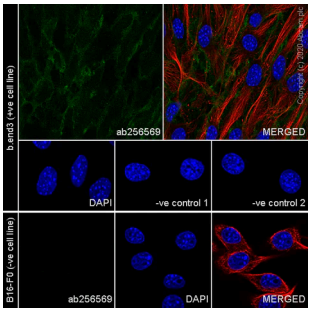


### Flow Cytometry - Anti-PECAM-1/CD31 antibody [MEC 13.3] (ab256569)

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

Flow cytometric analysis of B16-F0 (mouse melanoma epithelial cell-like) (Left panel) / bEnd.3 (mouse brain endothelioma) (Right panel) cells labelling CD31 with ab256569 at 1/1000 dilution (1.058µg/ml) (Red) compared with a rat monoclonal IgG (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). 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 (PMID: 8082649).

Gated on viable cells.




## Immunocytochemistry/ Immunofluorescence - Anti-PECAM-1/CD31 antibody [MEC 13.3] (ab256569)

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

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized b.end3 and B16-F0(-) cells labelling CD31 with ab256569 at 1/50 dilution (21.16µg/ml), followed by ab150157 Goat Anti-rat IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (2µg/ml) (Green). Confocal image showing membranous and cytoplasmic staining in b.end3 cells.
**Negative control:** B16-F0 (PMID: 8082649).

ab179513 Anti-beta Tubulin rabbit monoclonal antibody was used to counterstain tubulin at 1/200 dilution (2.5µg/ml), followed by ab150080 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) at a 1/500 dilution (4µg/ml) (Red). The nuclear counterstain was DAPI (Blue).

**Negative control 1:** ab256569 at a 1/50 dilution (21.16µg/ml) followed by ab150080 at a 1/500 dilution (4µg/ml).

**Negative control 2:** ab179513 at 1/200 dilution (2.5µg/ml) followed by ab150157 at a 1/1000 dilution (2µg/ml).

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