# abcam

## Product datasheet

## Anti-CD31 antibody [MEC 7.46] ab7388

リコンピナント

★★★★★ 8 Abreviews 117 References 画像数 3

#### 製品の概要

製品名 Anti-CD31 antibody [MEC 7.46]

製品の詳細 Rat monoclonal [MEC 7.46] to CD31

由来種 Rat

特異性 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.

アプリケーション 適用あり: Flow Cyt, ICC/IF

適用なし: IP or WB

種交差性 交差種: Mouse

免疫原 Tissue, cells or virus. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール ICC: mouse bEnd.3 cell line; Flow Cyt: mouse bEnd.3 cell line

特記事項 This product has switched from a hybridoma to recombinant production method on 08<sup>th</sup> March

2021.

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.

### 製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

Avoid freeze / thaw cycle.

パッファー Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 0.5% BSA, 40% Glycerol (glycerin, glycerine)

1

精製度 Protein A purified

**ポリ/モノ** モノクローナル

**クローン名** MEC 7.46

アイソタイプ lgG1

軽鎖の種類 kappa

## アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab7388の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt		1/1000.
ICC/IF	<b>★★★☆☆(1)</b>	1/50.

追加情報 Is unsuitable for IP or WB.

#### ターゲット情報

#### 機能

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).

### 組織特異性

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).

#### 配列類似性

Contains 6 lg-like C2-type (immunoglobulin-like) domains.

regulation of its activity.

ドメイン

The Ig-like C2-type domains 2 and 3 contribute to formation of the complex with BDKRB2 and in

翻訳後修飾

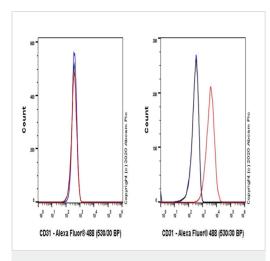
Phosphorylated on Ser and Tyr residues after cellular activation. In endothelial cells Fyn mediates

#### 細胞内局在

mechanical-force (stretch or pull) induced tyrosine phosphorylation.

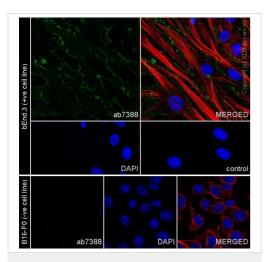
Membrane. Cell junction. Localizes to the lateral border recycling compartment (LBRC) and recycles from the LBRC to the junction in resting endothelial cells and Cell junction. Localizes to the lateral border recycling compartment (LBRC) and recycles from the LBRC to the junction in resting endothelial cells.

#### 画像



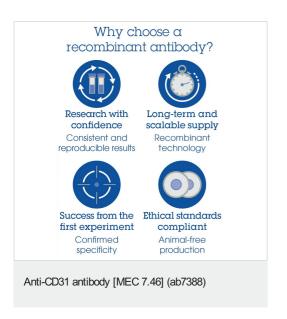
Flow Cytometry - Anti-CD31 antibody [MEC 7.46] (ab7388)

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 lgG (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat F(ab)2 Anti-Rat lgG Fc (Alexa Fluor® 488, <u>ab150161</u>) at 1/2000 dilution was used as the secondary antibody. Negative control: B16-F0.Gated on viable cells.



Immunocytochemistry/ Immunofluorescence - Anti-CD31 antibody [MEC 7.46] (ab7388) 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 lgG 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 <u>ab150157</u> Goat Anti-Rat IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



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