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Store at -20C  
#3528

## CD31 (PECAM-1) (89C2) Mouse mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

<b>Applications:</b> W, IP, IHC-P, IF-IC	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 130	<b>Source/Isotype:</b> Mouse IgG1	<b>UniProt ID:</b> #P16284	<b>Entrez-Gene Id:</b> 5175
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### Product Usage Information

#### Application

Western Blotting  
Immunoprecipitation  
Immunohistochemistry (Paraffin)  
Immunofluorescence (Immunocytochemistry)

#### Dilution

1:1000  
1:50  
1:800 - 1:3200  
1:800 - 1:3200

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #85873.

### Specificity/Sensitivity

CD31 (PECAM-1) (89C2) Mouse mAb detects endogenous levels of total CD31 protein. It does not cross-react with other related proteins.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant human CD31 protein.

### Background

CD31 (Platelet Endothelial Cell Adhesion Molecule-1: PECAM-1), a member of the Ig superfamily of cell adhesion molecules, is expressed by circulating platelets, monocytes, neutrophils, some T cells, and endothelial cells and modulates cell adhesion, endothelial cell migration, and angiogenesis (1). CD31 is phosphorylated on Tyr686 at the cytoplasmic carboxy-terminal tail upon various stimuli (e.g. mechanical or oxidative stress), presumably by Src family members (2). The tyrosine phosphorylation mediates associations with a number of SH2 domain-containing binding partners such as PI3 kinase, SHIP, PLCγ, and SHP-2. Thus, CD31 serves as a scaffold for various signaling molecules (3).

### Background References

1. Newman, P.J. (1997) *J. Clin. Invest.* 99, 3-8.
2. Cao, M. Y. et al. (1998) *J. Biol. Chem.* 273, 15765-72.
3. Ilan, N. and Madri, J.A. (2003) *Curr. Opin. Cell Biol.* 15, 515-24.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

### Applications Key

**W:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry)

### Cross-Reactivity Key

**H:** Human

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