

# CD31 (PECAM-1) (158-2B3) Mouse mAb

✓ 400 µl  
(100 Tests)

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This product is for *in vitro* research use only and is not intended for use in humans or animals.

Applications	Species Cross-Reactivity	Molecular Wt.	Source	Isotype
F	H	130 kDa	Mouse	IgG1

**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 tyrosine phosphorylated (Tyr686) at the cytoplasmic carboxy-terminal tail upon various stimuli (e.g. mechanical stress 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, PLC $\gamma$  and SHP-2. Thus, CD31 serves as a scaffold for various signaling molecules (3).

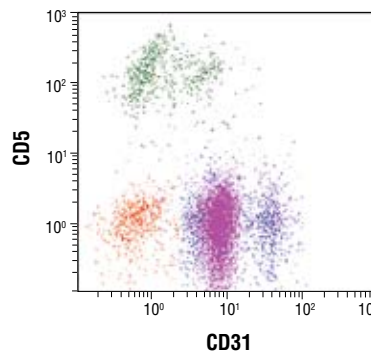
**Specificity/Sensitivity:** CD31 (PECAM-1) (158-2B3) Mouse mAb detects endogenous levels of CD31.

**Source/Purification:** Monoclonal antibody is produced by immunizing BALB/c mice with stimulated human leucocytes.

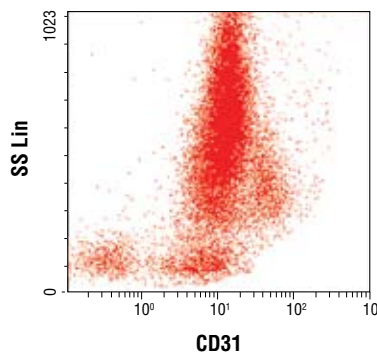
**Directions for Use:** Incubate cells with 10% normal serum from same species as the secondary antibody for 10 minutes. Add the antibody at the recommended dilution and incubate for 30 minutes at room temperature. Wash with PBS and incubate with fluorochrome-conjugated secondary antibody for 30 minutes at room temperature. Wash with PBS and analyze on flow cytometer. **Note:** Not recommended for use with fixation/permeabilization protocols that contain methanol.

#### Background References:

- (1) Newman, P.J. (1997) *J. Clin. Invest.* 99, 3–8.
- (2) Cao, M.Y. et al. (1998) *J. Biol. Chem.* 273, 15765–15772.
- (3) Ilan, N. and Madri, J.A. (2003) *Curr. Opin. Cell Biol.* 15, 515–524.



Two color flow cytometric analysis of whole blood, using CD31 (1582B3) Mouse mAb and CD5. Pink=granulocytes, blue=monocytes, and green=T cells & B cell subset.



Flow cytometric analysis of whole blood, using CD31 (158-2B3) Mouse mAb.

**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.

**Recommended Antibody Dilutions:**  
Flow Cytometry 1:25

#### Companion Products:

Src Antibody Sampler Kit #9935

PI3 Kinase p85 Antibody #4292

Phospho-SHIP1 (Tyr1020) Antibody #3941

Phospho-PLC $\gamma$ 1 (Tyr783) Antibody #2821

CD10 (CB-CALLA) Mouse mAb #3565

CD13 (B-F10) Mouse mAb #3566

CD16 (Fc $\gamma$ II) (CB-16) Mouse mAb #3567

CD34 (IC0115) Mouse mAb #3569

CD45 (136-4B5) Mouse mAb #3575

Phospho-SHP-2 (Tyr580) Antibody #3754

Phototope®-HRP Western Blot Detection System, Anti-mouse IgG, HRP-linked Antibody #7072

Anti-mouse IgG, HRP-linked Antibody #7076

Prestained Protein Marker, Broad Range (Premixed Format) #7720

Biotinylated Protein Ladder Detection Pack #7727

20X LumiGLO® Reagent and 20X Peroxide #7003