

PE anti-CD31 (PECAM-1) Antibody

Catalog# / Size	623555 / 25 tests 623556 / 100 tests
Clone	JC70
Regulatory Status	RUO
Other Names	Platelet and endothelial cell adhesion molecule (PECAM-1), EndoCAM
Isotype	Mouse IgG1, κ
Description	CD31, widely known as "platelet and endothelial cell adhesion molecule" (PECAM), is a crucial transmembrane glycoprotein primarily found on the surface of endothelial cells and platelets. The quintessential endothelial cell marker, CD31 is vital for the maintenance of vascular integrity. It plays a pivotal role in cell-cell adhesion, promoting interactions between neighboring endothelial cells, and facilitates leukocyte diapedesis during the inflammatory response. CD31 also mediates platelet-endothelial interactions, contributing to platelet aggregation and thrombus formation at sites of vascular injury. Additionally, this multifunctional molecule is involved in signal transduction pathways that govern cell migration, proliferation, and survival, making it a key player in immune response regulation and angiogenesis.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Cell membrane preparation from the spleen of a patient with hairy cell leukemia
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested ICFC - Verified
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 μ L per million cells in 100 μ L staining volume or 5 μ L per 100 μ L of whole blood. For flow cytometric staining, the suggested use of this reagent is 5 μ L per million cells in 100 μ L staining volume or 5 μ L per 100 μ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Additional Product Notes	When using this antibody in intracellular flow cytometry (ICFC) on human peripheral blood, we recommend Cyto-Fast™ Fix/Perm Buffer Set (Cat. No. 426803). We do not recommend True-Nuclear™ Transcription Factor Buffer Set (Cat. No. 424401).
RRID	AB_3717184 (BioLegend Cat. No. 623555) AB_3717184 (BioLegend Cat. No. 623556)

Antigen Details

Structure	CD31 is a 738 amino acid protein with a predicted molecular weight of 82.5 kD.
Distribution	Endothelial cells, Platelets, Granulocytes, Lymphocytes, Monocytes, Neutrophils, Cell surface
Function	Cell adhesion
Interaction	BDKRB2 and GNAQ
Ligand/Receptor	Forms homophillic interactions, also CD38, CD177, α V/ β 3 integrin
Cell Type	B cells, Dendritic cells, Endothelial cells, Granulocytes, Macrophages, Monocytes, Neutrophils, Platelets, T cells
Biology Area	Angiogenesis, Cell Adhesion, Cell Biology, Immunology, Neuroinflammation, Neuroscience
Molecular Family	Adhesion Molecules, CD Molecules

Antigen References	1. Barclay AN, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook Academic Press.</i> 2. DeLisser HM, <i>et al.</i> 1994. <i>Immunol. Today.</i> 15:490-5. 3. Newman PJ, <i>et al.</i> 1990. <i>Science</i> 247:1219-22. 4. Lertkiatmongkol P, <i>et al.</i> 2016. <i>Curr Opin Hematol.</i> 23:253-9. 5. Yeh JC, <i>et al.</i> 2008. <i>Biochemistry.</i> 47:9029-39.
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Gene ID

5175

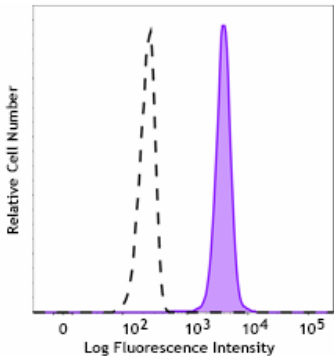
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)
- [Intracellular Flow Cytometry Staining Protocol](#)

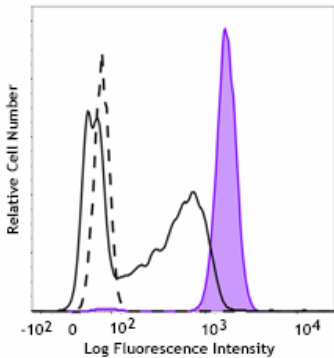
Other Formats

Purified anti-CD31 (PECAM-1), Alexa Fluor® 647 anti-CD31 (PECAM-1) Antibody, PE anti-CD31 (PECAM-1)

Product Data



Human peripheral blood granulocytes were stained with PE anti-human CD31 (PECAM-1) (clone JC70) (filled histogram) or PE Mouse IgG1, κ Isotype control (open histogram) (Cat. No. 400111). Cells were analyzed for surface flow cytometry.



Human peripheral blood was fixed and permeabilized using Cyto-Fast™ Fix/Perm Buffer Set (Cat. No. 426803) and then intracellular stained with PE anti-human CD31 (PECAM-1) (clone JC70) or PE mouse IgG1, κ Isotype control (open histogram, dashed line) (Cat. No. 400111). Filled histogram represents granulocytes, and open histogram solid line represent lymphocytes.

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