

Monoclonal Antibody to CD31 / PECAM1 - PE

Alternate names:	EndoCAM, GPIIA', PECAM-1, Platelet endothelial cell adhesion molecule
Catalog No.:	BM4047R
Quantity:	100 Tests
Background:	CD31 (platelet endothelial cell adhesion molecule-1, PECAM-1) is an inhibitory coreceptor involved in rebulation of T cell and B cell signaling by a dual immunoreceptor tyrosine-based inhibitory motif (ITIM) that upon associated kinases-mediated phosphorylation provide docking sites for protein-tyrosine phosphatases. CD31 is expressed ubiquitously within the vascular compartment and is located mainly at junctions between adjacent cells. N-terminal Ig-like domain of CD31 is responsible for its homophilic binding, which plays an important role in cell-cell interactions. CD31 is a multifunctional molecule with diverse roles in modulation of integrin-mediated cell adhesion, transendothelial migration, angiogenesis, apoptosis, negative regulation of immunoreceptor signaling, autoimmunity, macrophage phagocytosis, IgE-mediated anaphylaxis and thrombosis. It is one of key regulatory molecules in vascular system.
Uniprot ID:	P16284
NCBI:	9606
Host / Isotype:	Mouse / IgG1
Clone:	MEM-05
Immunogen:	Leukocytes of patient suffering from LGL-type leukaemia
Format:	State: Liquid purified Ig fraction Purification: Size-exclusion chromatography Buffer System: PBS containing 15 mM sodium azide as preservative and 0.2 % (w/v) high-grade BSA (Protease free) as stabilizer. Label: PE – Conjugated with R-Phycoerythrin under optimum conditions
Applications:	Suitable for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10e6 cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	The antibody MEM-05 reacts with CD31 (PECAM-1), a 130-140 kDa type I transmembrane glycoprotein expressed on monocytes, platelets, granulocytes, endothelial cells and stem cells of the myeloid lineage. Species: Human. Other species not tested.

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

Storage: Store the antibody in the dark at 2-8°C.

Do Not Freeze!

Avoid prolonged exposure to light.

Shelf life: One year from despatch.

Product Citation: Unconjugated antibody is cited in:

1. Eric Soupene, Vladimir Serikov, and Frans A. Kuypers Characterization of an acyl-coenzyme A binding protein predominantly expressed in human primitive progenitor cells *J. Lipid Res.*, May 2008; 49: 1103 - 1112.

General References:

1. Newman DK, Hamilton C, Newman PJ: Inhibition of antigen-receptor signaling by Platelet Endothelial Cell Adhesion Molecule-1 (CD31) requires functional ITIMs, SHP-2, and p56(lck). *Blood*. 2001 Apr 15;97(8):2351-7.
2. Wilkinson R, Lyons AB, Roberts D, Wong MX, Bartley PA, Jackson DE: Platelet endothelial cell adhesion molecule-1 (PECAM-1/CD31) acts as a regulator of B-cell development, B-cell antigen receptor (BCR)-mediated activation, and autoimmune disease. *Blood*. 2002 Jul 1;100(1):184-93.
3. Jackson DE: The unfolding tale of PECAM-1. *FEBS Lett*. 2003 Apr 10;540(1-3):7-14.
4. Wee JL, Jackson DE: The Ig-ITIM superfamily member PECAM-1 regulates the "outside-in" signaling properties of integrin alpha(IIb)beta3 in platelets. *Blood*. 2005 Dec 1;106(12):3816-23.
5. Woodfin A, Voisin MB, Nourshargh S: PECAM-1: a multi-functional molecule in inflammation and vascular biology. *Arterioscler Thromb Vasc Biol*. 2007 Dec;27(12):2514-23.
6. Wong MX, Hayball JD, Jackson DE: PECAM-1-regulated signalling thresholds control tolerance in anergic transgenic B-cells. *Mol Immunol*. 2007 Oct 29
7. Prager E, Staffler G, Majdic O, Saemann M, Godar S, Zlabinger G, Stockinger H.: Induction of hyporesponsiveness and impaired T lymphocyte activation by the CD31 receptor:ligand pathway in T cells. *J Immunol*. 2001 Feb 15;166(4):2364-71.

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