



11-273-C025

## Monoclonal Antibody to CD31 Purified Antibody (0.025 mg)

<b>Clone:</b>	MEM-05
<b>Isotype:</b>	Mouse IgG1
<b>Specificity:</b>	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.
<b>Regulatory Status:</b>	RUO
<b>Immunogen:</b>	Leukocytes of patient suffering from LGL-type leukaemia
<b>Species Reactivity:</b>	Human
<b>Application:</b>	Flow Cytometry Recommended dilution: 1-10 µg/ml Western Blotting Application note: Non-reducing conditions
<b>Purity:</b>	> 95% (by SDS-PAGE)
<b>Purification:</b>	Purified by protein-A affinity chromatography
<b>Concentration:</b>	1 mg/ml
<b>Storage Buffer:</b>	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
<b>Storage / Stability:</b>	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	CD31 (platelet endothelial cell adhesion molecule-1, PECAM-1) is an inhibitory coreceptor involved in regulation 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.

**For laboratory research only, not for drug, diagnostic or other use.**

**Antibodies****References:**

- \*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.
- \*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.
- \*Jackson DE: The unfolding tale of PECAM-1. *FEBS Lett*. 2003 Apr 10;540(1-3):7-14.
- \*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.
- \*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.
- \*Wong MX, Hayball JD, Jackson DE: PECAM-1-regulated signalling thresholds control tolerance in anergic transgenic B-cells. *Mol Immunol*. 2007 Oct 29
- \*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.
- \*Cârțână T, Săftoiu A, Gruionu LG, Gheonea DI, Pirici D, Georgescu CV, Ciocâlțeu A, Gruionu G: Confocal laser endomicroscopy for the morphometric evaluation of microvessels in human colorectal cancer using targeted anti-CD31 antibodies. *PLoS One*. 2012;7(12):e52815. doi: 10.1371/journal.pone.0052815.

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at [www.exbio.cz](http://www.exbio.cz).

**For laboratory research only, not for drug, diagnostic or other use.**

EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic  
Tel: +420 261 090 666 | Fax: +420 261 090 660 | [orders@exbio.cz](mailto:orders@exbio.cz) | [www.exbio.cz](http://www.exbio.cz)