

## anti-human CD31 no azide

monoclonal antibody MEM-5 to human CD31

Cat-No: **21270310**

100 µg in 100 µl

**Clone:** MEM-5

**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.

**Isotype subclass:** Mouse IgG1

**Form:** Purified by protein-A affinity chromatography.

**Purity:** > 95% (by SDS-PAGE)

**Physical state:** Liquid

**Buffer/Additives/Preservative:** PBS (sterile), (pH 7.2)

**Expiration date:** The reagent is stable until the expiry date stated on the vial label.

**Storage conditions:** Aliquot and store at -20°C. Avoid freeze/thaw cycles. Should be handled under aseptic conditions.

**Application:** Flow Cytometry, Western Blotting: non reducing conditions, Functional application

**References:** \*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.

**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.

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