

# anti-human CD31

## Monoclonal Antibody MEM-05 to CD31 (Human)

Cat-No: **21270311**

100 µg in 100 µl

**Clone:** MEM-05

**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 from ascites by protein-A affinity chromatography.

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

**Physical state:** Liquid

**Buffer/Additives/Preservative:** PBS containing 0.09 % sodium azide (pH 7.2).

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

**Storage conditions:** Store at 4°C. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

**Application:** Flow Cytometry  
Western Blotting: non reducing conditions

**Background:** **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.

### 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.

**Warning:** Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

**ImmunoTools** Excellent Quality - Advantageously priced

Gladiolenweg 2; 26169 Friesoythe; Germany  
phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, info@immunotools.com  
www.immunotools.com