

1A-273-T100

## Monoclonal Antibody to CD31 Allophycocyanin (APC) conjugated (100 tests)

Clone: MEM-05

**Isotype:** Mouse IgG1

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.

Regulatory Status: RUO

**Immunogen:** Leukocytes of patient suffering from LGL-type leukaemia

Species Reactivity: Human

**Preparation:** The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under

optimum conditions. The conjugate is purified by size-exclusion chromatography

and adjusted for direct use. No reconstitution is necessary.

Storage Buffer: The reagent is provided in stabilizing phosphate buffered saline (PBS) solution

containing 15mM sodium azide.

Storage / Stability: Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not

use after expiration date stamped on vial label.

Usage: The reagent is designed for Flow Cytometry analysis of human blood cells using

10  $\mu$ l reagent / 100  $\mu$ l of whole blood or 10 $^{\circ}$  cells in a suspension.

The content of a vial (1 ml) is sufficient for 100 tests.

**Expiration:** See vial label

Lot Number: See vial label

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.



## PRODUCT DATA SHEET

## References:

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\*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.

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