

1P-266-T025

Monoclonal Antibody to CD50 Phycoerythrin (PE) conjugated (25 tests)

Clone:	MEM-171
Isotype:	Mouse IgG1
Specificity:	The antibody MEM-171 recognizes an epitope in the D2 domain of CD50 (ICAM-3), a 120-130 kDa type I membrane protein (immunoglobulin supergene family) expressed on leukocytes, endothelial cells and Langerhans cells; it is negative on platelets and erythrocytes. HLDA VI; WS Code BP 614 HLDA VI; WS Code NL N-L022
Immunogen:	Human granulocytes
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) 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 phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.
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. Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.5 ml) is sufficient for 25 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD50 (intracellular adhesion molecule 3, ICAM-3) is a transmembrane glycoprotein expressed by leukocytes, that serves as a counter-receptor for the lymphocyte function-associated antigen (LFA)-1 integrin. Besides functioning as an adhesive molecule that mediates e.g. the contact between T cells and antigen presenting cells, ICAM-3 regulates affinity of LFA-1 for ICAM-1 and induces T cell activation and proliferation. ICAM-3 plays an essential role in the initiation of the immune response both on T cells and antigen presenting cells and interacts also with CD209 (dendritic cell-specific ICAM-3-grabbing nonintegrin, DC-SIGN), a C-type lectin of dendritic cells and macrophages; this process is involved in dialogue between dendritic cells and granulocytes.

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

**Antibodies****References:**

- *Campanero MR, del Pozo MA, Arroyo AG, Sánchez-Mateos P, Hernández-Caselles T, Craig A, Pulido R, Sánchez-Madrid F. ICAM-3 interacts with LFA-1 and regulates the LFA-1/ICAM-1 cell adhesion pathway. *J Cell Biol.* 1993 Nov;123(4):1007-16.
- *Hernandez-Caselles T, Rubio G, Campanero MR, del Pozo MA, Muro M, Sanchez-Madrid F, Aparicio P: ICAM-3, the third LFA-1 counterreceptor, is a co-stimulatory molecule for both resting and activated T lymphocytes. *Eur J Immunol.* 1993 Nov;23(11):2799-806.
- *Arroyo AG, Campanero MR, Sánchez-Mateos P, Zapata JM, Ursa MA, del Pozo MA, Sánchez-Madrid F: Induction of tyrosine phosphorylation during ICAM-3 and LFA-1-mediated intercellular adhesion, and its regulation by the CD45 tyrosine phosphatase. *J Cell Biol.* 1994 Sep;126(5):1277-86.
- *Bogoevska V, Nollau P, Lucka L, Grunow D, Klampe B, Uotila LM, Samsen A, Gahmberg CG, Wagener C: DC-SIGN binds ICAM-3 isolated from peripheral human leukocytes through Lewis x residues. *Glycobiology.* 2007 Mar;17(3):324-33.
- *Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).
- *Linnebacher M, Wienck A, Boeck I, Klar E: Identification of an MSI-H tumor-specific cytotoxic T cell epitope generated by the (-1) frame of U79260(FTO). *J Biomed Biotechnol.* 2010;2010:841451.
- *Filatov AV, Krotov GI, Zgoda VG, Volkov Y: Fluorescent immunoprecipitation analysis of cell surface proteins: a methodology compatible with mass-spectrometry. *J Immunol Methods.* 2007 Jan 30;319(1-2):21-33.
- *Cermák L, Símová S, Pintzas A, Horejsí V, Andera L: Molecular mechanisms involved in CD43-mediated apoptosis of TF-1 cells. Roles of transcription Daxx expression, and adhesion molecules. *J Biol Chem.* 2002 Mar 8;277(10):7955-61.

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