

1P-228-T100

Monoclonal Antibody to CD54 Phycoerythrin (PE) conjugated (100 tests)

Clone:	MEM-111
Isotype:	Mouse IgG2a
Specificity:	The antibody MEM-111 reacts with CD54 (ICAM-1), a 85-110 kDa type I transmembrane glycoprotein (receptor for rhinovirus). The expression of CD54 is upregulated by activation; it is expressed on activated endothelial cells, T lymphocytes, B lymphocytes, monocytes, macrophages, granulocytes and dendritic cells. HLDA VI; WS Code AS A049
Regulatory Status:	RUO
Immunogen:	Raji human Burkitt's lymphoma cell line
Species Reactivity:	Human, Rat, Bovine
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 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 20 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD54 (ICAM-1) is a 90 kD member of the C2 subset of immunoglobulin superfamily. It is a transmembrane molecule with 7 potential N-glycosylated sites, expressed on resting monocytes and endothelial cells and can be upregulated on many other cells, e.g. with lymphokines, on B- and T-lymphocytes, thymocytes, dendritic cells and also on keratinocytes, chondrocytes, as well as epithelial cells. CD54 mediates cell adhesion by binding to integrins CD11a/CD18 (LFA-1) and to CD11b/CD18 (Mac-1). The interaction of CD54 with LFA-1 enhances antigen-specific T-cell activation.

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**Antibodies****References:**

- *Leeuwenberg JFM et al.: E-selectin and intercellular adhesion molecule-1 are released by activated human endothelial cells in vitro. *Immunology* 77, 543 (1992).
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- *Tachimoto H. et al., Eotaxin-2 Alters Eosinophil Integrin Function via Mitogen-Activated Protein Kinases. *Am J Respir Cell Mol Biol* 26, 645 (2002).
- *Burdick MM et al.: Colon carcinoma cell glycolipids, integrins, and other glycoproteins mediate adhesion to HUVECs under flow. *Am J Physiol Cell Physiol* 284, C977 (2003).
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- *Bacáková L, Mares V, Lysá V, Svorcík V: Molecular mechanisms of improved adhesion and growth of an endothelial cell line cultured on polystyrene implanted with fluorine ions. *Biomaterials.* 2000 Jun;21(11):1173-9.
- *Bacáková L, Mares V, Bottone MG, Pellicciari C, Lisá V, Svorcík V: Fluorine ion-implanted polystyrene improves growth and viability of vascular smooth muscle cells in culture. *J Biomed Mater Res.* 2000 Mar 5;49(3):369-79.
- *Lee DJ, Sieling PA, Ochoa MT, Krutzik SR, Guo B, Hernandez M, Rea TH, Cheng G, Colonna M, Modlin RL: LILRA2 activation inhibits dendritic cell differentiation and antigen presentation to T cells. *J Immunol.* 2007 Dec 15;179(12):8128-36.

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