



1P-429-T025

Monoclonal Antibody to CD54 Phycoerythrin (PE) conjugated (25 tests)

Clone:	1H4
Isotype:	Mouse IgG2b
Specificity:	The antibody 1H4 reacts with CD54 (ICAM-1), a 85-110 kDa type I transmembrane glycoprotein (receptor for rhinovirus) expressed on activated endothelial cells, T lymphocytes, B lymphocytes, monocytes, macrophages, granulocytes and dendritic cells; the expression of CD54 is upregulated by activation.
Immunogen:	Raji cells and spleen cells fused with NS1 cells
Species Reactivity:	Human, Other not tested
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:	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.

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



Antibodies

References:

- *Boyd AW, Wawryk SO, Burns GF, Fecondo JV.: Intercellular adhesion molecule 1 (ICAM-1) has a central role in cell-cell contact-mediated immune mechanisms. Proc Natl Acad Sci U S A. 1988 May;85(9):3095-9.
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- *Springer TA.: Adhesion receptors of the immune system. Nature. 1990 Aug 2;346(6283):425-34.
- *Ockenhouse CF, Betageri R, Springer TA, Staunton DE.: Plasmodium falciparum-infected erythrocytes bind ICAM-1 at a site distinct from LFA-1, Mac-1, and human rhinovirus. Cell. 1992 Jan 10;68(1):63-9. Erratum in: Cell 1992 Mar 6;68(5):following 994.
- *Williams DT, Chaudhry Y, Goodfellow IG, Lea S, Evans DJ.: Interactions of decay-accelerating factor (DAF) with haemagglutinating human enteroviruses: utilizing variation in primate DAF to map virus binding sites. J Gen Virol. 2004 Mar;85(Pt 3):731-8.

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