TECHNICAL DATA SHEET

CyFlow™ CD54 PerCP
Anti-Hu; Clone 1H4

REF **BN093653**

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD54
Alternative Names	ICAM-1
Clone	1H4
Clonality	monoclonal
Format	PerCP
Host / Isotype	Mouse / IgG2b
Species Reactivity	Human
Negative Species Reactivity	—
Quantity	100 tests
Immunogen	Raji cells and spleen cells fused with NS1 cells

Specificity

The mouse monoclonal antibody 1H4 recognizes CD54 antigen, a 85-110 kDa type I transmembrane glycoprotein (receptor for rhinovirus) expressed on activated endothelial cells, T lymphocytes, B

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lymphocytes, monocytes, macrophages, granulocytes and dendritic cells; the expression of CD54 is upregulated by activation.

Application

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 10 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.

Other usages may be determined from the scientific literature.

Storage Buffer

The reagent is provided in stabilizing phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

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.

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 USA. 1988 May; 85(9):3095-9. < PMID: 3362863 >
- Boyd AW, Dunn SM, Fecondo JV, Culvenor JG, Duhrsen U, Burns GF, Wawryk SO: Regulation of expression of a human intercellular adhesion molecule (ICAM-1) during lymphohematopoietic differentiation. Blood. 1989 May 15; 73(7):1896-903. < PMID: 2469503 >

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- Springer TA: Adhesion receptors of the immune system. Nature. 1990 Aug 2; 346(6283):425-34. < PMID: 1974032 >
- 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. < PMID: 1346257 >
- 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(3):731-8. < PMID: 14993659 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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