

1A-429-T100

## Monoclonal Antibody to CD54 Allophycocyanin (APC) conjugated (100 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.

Regulatory Status: RUO

Immunogen: Raji cells and spleen cells fused with NS1 cells

Species Reactivity: Human, Other not tested

**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 μl reagent / 100 μl of whole blood or 10° 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: 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.



## PRODUCT DATA SHEET

## 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.

\*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. \*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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