

## TECHNICAL DATA SHEET

### CyFlow™ CD54 PE Anti-Hu; Clone 1H4

**REF** BK215651

**For Research Use Only.**

**Not for use in diagnostic or therapeutic procedures.**

### Specifications

|                                    |                                                  |
|------------------------------------|--------------------------------------------------|
| <b>Antigen</b>                     | CD54                                             |
| <b>Alternative Names</b>           | ICAM-1                                           |
| <b>Clone</b>                       | 1H4                                              |
| <b>Clonality</b>                   | monoclonal                                       |
| <b>Format</b>                      | PE                                               |
| <b>Host / Isotype</b>              | Mouse / IgG2b                                    |
| <b>Species Reactivity</b>          | Human                                            |
| <b>Negative Species Reactivity</b> | —                                                |
| <b>Quantity</b>                    | 100 tests                                        |
| <b>Immunogen</b>                   | 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

#### Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany  
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: [info@sysmex-partec.com](mailto:info@sysmex-partec.com)

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 20 µl reagent / 100 µl of whole blood or 10<sup>6</sup> cells in a suspension. The content of a vial (2 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

|                  |                                                                               |
|------------------|-------------------------------------------------------------------------------|
| <b>Storage</b>   | Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze. |
| <b>Stability</b> | 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 >

---

### Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany  
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: [info@sysmex-partec.com](mailto:info@sysmex-partec.com)

- 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](http://www.sysmex-partec.com/services).

---

---

**Contact Information:**

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany  
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: [info@sysmex-partec.com](mailto:info@sysmex-partec.com)