

TECHNICAL DATA SHEET

CyFlow™ CD50 Low Endotoxin Anti-Hu; Clone MEM-04

REF AS684336

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD50
Alternative Names	ICAM-3
Clone	MEM-04
Clonality	monoclonal
Format	Low Endotoxin
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	Leukocytes of a patient suffering from LGL-type Leukemia

Specificity

The mouse monoclonal antibody MEM-04 recognizes CD50 antigen, a 120-130 kDa type I membrane protein (immunoglobulin supergene family) expressed on leukocytes, endothelial cells and Langerhans

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

cells; it is negative on platelets and erythrocytes. The MEM-04 blocks DC-SIGN (CD209) binding to ICAM-3 (epitope in D1).

Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunohistochemistry (paraffin-embedded sections)
- Functional assays

Storage Buffer

The reagent is provided in azide-free phosphate buffered saline (PBS) solution, pH ≈7.4; 0.2 µm filter sterilized. Endotoxin level is less than 0.01 EU/µg of the protein, as determined by the LAL test.

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

CD50 (ICAM-3; intracellular adhesion molecule 3) is a transmembrane glycoprotein expressed by leukocytes, that serves as a counter-receptor for the lymphocyte function-associated antigen (LFA)-1 integrin. Besides functioning as an adhesive molecule that mediates e.g. the contact between T cells and antigen presenting cells, ICAM-3 regulates affinity of LFA-1 for ICAM-1 and induces T cell activation and proliferation. ICAM-3 plays an essential role in the initiation of the immune response both on T cells and antigen presenting cells and interacts also with CD209 (DC-SIGN; dendritic cell-specific ICAM-3-grabbing nonintegrin), a C-type lectin of dendritic cells and macrophages; this process is involved in dialogue between dendritic cells and granulocytes.

References

- Campanero MR, del Pozo MA, Arroyo AG, Sánchez-Mateos P, Hernández-Caselles T, Craig A, Pulido R, Sánchez-Madrid F: ICAM-3 interacts with LFA-1 and regulates the LFA-1/ICAM-1 cell adhesion pathway. J Cell Biol. 1993 Nov; 123(4):1007-16. < PMID: 7901223 >
- Hernandez-Caselles T, Rubio G, Campanero MR, del Pozo MA, Muro M, Sanchez-Madrid F, Aparicio P: ICAM-3, the third LFA-1 counterreceptor, is a co-stimulatory molecule for both resting and activated T lymphocytes. Eur J Immunol. 1993 Nov; 23(11):2799-806. < PMID: 8223855 >

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

- Arroyo AG, Campanero MR, Sánchez-Mateos P, Zapata JM, Ursa MA, del Pozo MA, Sánchez-Madrid F: Induction of tyrosine phosphorylation during ICAM-3 and LFA-1-mediated intercellular adhesion, and its regulation by the CD45 tyrosine phosphatase. J Cell Biol. 1994 Sep; 126(5):1277-86. < PMID: 7520448 >
- Bogoevska V, Nollau P, Lucka L, Grunow D, Klampe B, Uotila LM, Samsen A, Gahmberg CG, Wagener C: DC-SIGN binds ICAM-3 isolated from peripheral human leukocytes through Lewis x residues. Glycobiology. 2007 Mar; 17(3):324-33. < PMID: 17145745 >

The Safety Data Sheet for this product is available at 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