

## TECHNICAL DATA SHEET

### CyFlow™ CD50 Biotin Anti-Hu; Clone MEM-171

**REF** AL442218

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**For Research Use Only.**  
**Not for use in diagnostic or therapeutic procedures.**

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## Specifications

<b>Antigen</b>	CD50
<b>Alternative Names</b>	ICAM-3
<b>Clone</b>	MEM-171
<b>Clonality</b>	monoclonal
<b>Format</b>	Biotin
<b>Host / Isotype</b>	Mouse / IgG1
<b>Species Reactivity</b>	Human
<b>Negative Species Reactivity</b>	—
<b>Quantity [Concentration]</b>	0.1 mg [ 1 mg/ml ]
<b>Immunogen</b>	Human granulocytes

## Specificity

The mouse monoclonal antibody MEM-171 recognizes an epitope in the D2 domain of CD50 antigen, a 120-130 kDa type I membrane protein (immunoglobulin supergene family) expressed on leukocytes, endothelial cells and Langerhans cells; it is negative on platelets and erythrocytes.

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## Application

The reagent is designed for indirect immunofluorescence analysis by Flow Cytometry. Suggested working usage is 2 µg/ml. Indicated dilution is recommended starting point for use of this product, but working concentrations should be validated by the investigator.

Other usages may be determined from the scientific literature.

## Storage Buffer

The reagent is provided in 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

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 >

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- Arroyo AG, Campanero MR, Sánchez-Mateos P, Zapata JM, Ursula 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 >
- Kishimoto T, Goyert S, Kikutani H, Mason D, Miyasaka M, Moretta L, Ohno T, Okumura K, Shaw S, Springer TA, Sugamura K, Sugawara H, von dem Borne AEGK, Zola H (Eds): *Leucocyte Typing VI*. Garland Publishing Inc, New York. 1997; 1-1342. < NLM ID: 9712219 >
- Cermák L, Símová S, Pintzas A, Horejsí V, Andera L: Molecular mechanisms involved in CD43-mediated apoptosis of TF-1 cells: Roles of transcription Daxx expression, and adhesion molecules. *J Biol Chem.* 2002 Mar 8; 277(10):7955-61. < PMID: 11773067 >
- Filatov AV, Krotov GI, Zgoda VG, Volkov Y: Fluorescent immunoprecipitation analysis of cell surface proteins: a methodology compatible with mass-spectrometry. *J Immunol Methods.* 2007 Jan 30; 319(1-2):21-33. < PMID: 17098248 >
- 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 >
- Linnebacher M, Wienck A, Boeck I, Klar E: Identification of an MSI-H tumor-specific cytotoxic T cell epitope generated by the -1 frame of U79260(FTO). *J Biomed Biotechnol.* 2010; 2010:841451. < PMID: 20339516 >

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The Safety Data Sheet for this product is available at [www.sysmex-partec.com/services](http://www.sysmex-partec.com/services).

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