TECHNICAL DATA SHEET

CyFlow™ CD11a Purified
Anti-Ms; Clone M17/4

REF **CA154449**

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD11a
Alternative Names	LFA-1
Clone	M17/4
Clonality	monoclonal
Format	Purified
Host / Isotype	Rat / IgG2a
Species Reactivity	Mouse
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	C57BL/6 mouse splenic secondary cytotoxic T lymphocytes

Specificity

The rat monoclonal antibody M17/4 recognizes mouse CD11a (α-subunit of murine LFA-1) antigen, a 180 kDa type I transmembrane glycoprotein expressed on B and T lymphocytes, monocytes, macrophages, neutrophils, basophils and eosinophils.

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

Application

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

- Flow cytometry
- Immunoprecipitation
- Immunohistochemistry (frozen sections)
- Functional assays

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

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

CD11a (LFA-1 α) together with CD18 constitute leukocyte function-associated antigen 1 (LFA-1), the αβ2 integrin. CD11a is implicated in activation of LFA-1 complex. LFA-1 is expressed on the plasma membrane of leukocytes in a low-affinity conformation. Cell stimulation by chemokines or other signals leads to induction the high-affinity conformation, which supports tight binding of LFA-1 to its ligands, the intercellular adhesion molecules ICAM-1, -2, -3. LFA-1 is thus involved in interaction of various immune cells and in their tissue-specific settlement, but participates also in control of cell differentiation and proliferation and of T-cell effector functions.

References

- Angelov GS, Guillaume P, Cebecauer M, Bosshard G, Dojcinovic D, Baumgaertner P, Luescher IF: Soluble MHC-peptide complexes containing long rigid linkers abolish CTL-mediated cytotoxicity. J Immunol. 2006 Mar 15; 176(6):3356-65. < PMID: 16517703 >
- Bellingan GJ, Xu P, Cooksley H, Cauldwell H, Shock A, Bottoms S, Haslett C, Mutsaers SE, Laurent GJ: Adhesion molecule-dependent mechanisms regulate the rate of macrophage clearance during the resolution of peritoneal inflammation. J Exp Med. 2002 Dec 2; 196(11):1515-21. < PMID: 12461086 >

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

- Beyer M, Wang H, Peters N, Doths S, Koerner-Rettberg C, Openshaw PJ, Schwarze J: The beta2 integrin CD11c distinguishes a subset of cytotoxic pulmonary T cells with potent antiviral effects in vitro and in vivo. Respir Res. 2005 Jul 12; 6:70. < PMID: 16011799 >
- Koseki S, Miura S, Fujimori H, Hokari R, Komoto S, Hara Y, Ogino T, Nagata H, Goto M, Hachimura S, Kaminogawa S, Ishii H: In situ demonstration of intraepithelial lymphocyte adhesion to villus microvessels of the small intestine. Int Immunol. 2001 Sep; 13(9):1165-74. < PMID: 11526097 >
- Kuhlman P, Moy VT, Lollo BA, Brian AA: The accessory function of murine intercellular adhesion molecule-1 in T lymphocyte activation: Contributions of adhesion and co-activation. J Immunol. 1991 Mar 15; 146(6):1773-82. < PMID: 1672331 >
- Papayannopoulou T, Priestley GV, Nakamoto B, Zafiropoulos V, Scott LM, Harlan JM: Synergistic mobilization of hemopoietic progenitor cells using concurrent beta1 and beta2 integrin blockade or beta2-deficient mice. Blood. 2001 Mar 1; 97(5):1282-8. < PMID: 11222371 >
- Sanchez-Madrid F, Davignon D, Martz E, Springer TA: Antigens involved in mouse cytolytic T-lymphocyte (CTL)-mediated killing: functional screening and topographic relationship. Cell Immunol. 1982 Oct; 73(1):1-11. < PMID: 6983917 >
- Smith SS, Barnum SR: Differential expression of beta 2-integrins and cytokine production between gammadelta and alphabeta T cells in experimental autoimmune encephalomyelitis. J Leukoc Biol. 2008 Jan; 83(1):71-9. < PMID: 17928460 >
- Yung R, Powers D, Johnson K, Amento E, Carr D, Laing T, Yang J, Chang S, Hemati N, Richardson B: Mechanisms of drug-induced lupus (II) T cells overexpressing lymphocyte function-associated antigen 1 become autoreactive and cause a lupus-like disease in syngeneic mice. J Clin Invest. 1996 Jun 15; 97(12):2866-71. < PMID: 8675699 >

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