Monoclonal Antibody to CD11a
Purified Antibody (0.1 mg)

Clone: MEM-25
Isotype: Mouse IgG1
Specificity: The antibody MEM-25 reacts with CD11a (alpha subunit of human LFA-1), a 170-180 kDa type I transmembrane glycoprotein expressed on B and T lymphocytes, monocytes, macrophages, neutrophils, basophils and eosinophils. HLDA IV; WS Code NL 209

Regulatory Status: RUO
Immunogen: Leukocytes from a patient suffering from a LGL-type leukaemia.
Species Reactivity: Human
Application: Flow Cytometry
Recommended dilution: 2 µg/ml
Immunoprecipitation
excellent antibody for immunoaffinity purification of LFA-1 complex
Functional Application
The antibody MEM-25 partially blocks binding of LFA-1 complex to ICAM-1.

Purity: > 95% (by SDS-PAGE)
Purification: Purified by protein-A affinity chromatography
Concentration: 1 mg/ml
Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability: Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
Expiration: See vial label
Lot Number: See vial label

Background: CD11a (LFA-1 alpha) together with CD18 constitute leukocyte function-associated antigen 1 (LFA-1), the alphaLbeta2 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 of 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. Blocking of LFA-1 function by specific antibodies or small molecules has become an important therapeutic approach in treatment of multiple inflammatory diseases. For example, humanized anti-LFA-1 antibody Efalizumab (Raptiva) is being used to interfere with T cell migration to sites of inflammation; binding of cholesterol-lowering drug simvastatin to CD11a allosteric site leads to immunomodulation and increase in lymphocytic cholinergic activity.
References:


*Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).


*Wang JH, Kwas C, Wu L: Intercellular adhesion molecule 1 (ICAM-1), but not ICAM-2 and -3, is important for dendritic cell-mediated human immunodeficiency virus type 1 transmission. J Virol. 2009 May;83(9):4195-204.


*And many other.