

30-1608: Anti-CD11a / LFA-1 alpha chain Monoclonal Antibody (Clone:MEM-83)-Low Endotoxin

Clonality :	Monoclonal
Clone Name :	MEM-83
Application :	Functional Assay, FACS, IP
Reactivity :	Human
Gene :	ITGAL
Gene ID :	3683
Uniprot ID :	P20701
Format :	Low Endotoxin
Alternative Name :	ITGAL,CD11A
Isotype :	Mouse IgG1
Immunogen Information :	Human peripheral blood lymphocytes

Description

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 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.

Product Info

Amount :	0.1 mg
Purification :	Purified by protein-A affinity chromatography
Storage condition :	Store at 2-8°C. Do not freeze.

Application Note

Functional Application The antibody MEM-83 directly induces the binding of T cells to purified ICAM-1. Using an in vitro-translated CD11a cDNA deletion series, the MEM-83 activation epitope was mapped to the "I" domain of the LFA-1 alpha subunit. The studies have therefore identified a novel LFA-1 activation epitope mapping to the I domain of LFA-1, which could play a role in the regulation of LFA-1 binding to ICAM-1. **Flow Cytometry Recommended dilution:** 1 µg/ml

Immunoprecipitation