

Product datasheet for **SM3100P**

CD11a (ITGAL) Mouse Monoclonal Antibody [Clone ID: MEM-83]

Product data:

Product Type:	Primary Antibodies
Clone Name:	MEM-83
Applications:	FC, FN, IP
Recommended Dilution:	Flow Cytometry: 1 µg/ml. Immunoprecipitation. Functional Application: The antibody <i>MEM-83</i> 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 a 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.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Human peripheral blood lymphocytes
Specificity:	The antibody recognizes a unique epitope on CD11a antigen (LFA-1 alpha chain) implicated in activation of LFA-1 complex.
Formulation:	Phosphate buffered saline (PBS), pH~7.4 State: Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: 15 mM Sodium Azide
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein A
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C. DO NOT FREEZE!
Stability:	Shelf life: one year from despatch.
Gene Name:	integrin subunit alpha L



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Database Link: [Entrez Gene 3683 Human P20701](#)

Background: CD11a (LFA-1a) together with CD18 constitute leukocyte function-associated antigen 1 (LFA-1), the α L β 2 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.

Synonyms: Integrin α -L, LFA1, LFA-1