

ARG62708 anti-CD11a / LFA1 alpha antibody [MEM-83]

Package: 100 µg

Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [MEM-83] recognizes CD11a / LFA1 alpha
Tested Reactivity	Hu
Tested Application	FACS, FuncSt, IP
Specificity	The clone MEM-83 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 N 211
Host	Mouse
Clonality	Monoclonal
Clone	MEM-83
Isotype	IgG1
Target Name	CD11a / LFA1 alpha
Species	Human
Immunogen	Human peripheral blood lymphocytes
Conjugation	Un-conjugated
Alternate Names	Leukocyte adhesion glycoprotein LFA-1 alpha chain; LFA1A; LFA-1A; Integrin alpha-L; CD11A; Leukocyte function-associated molecule 1 alpha chain; LFA-1; CD11 antigen-like family member A; CD antigen CD11a

Application Instructions

Application table	Application	Dilution
	FACS	1 µg/ml
	FuncSt	Assay-dependent
	IP	Assay-dependent
Application Note	<p>Functional studies: The clone 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.</p> <p>* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.</p>	

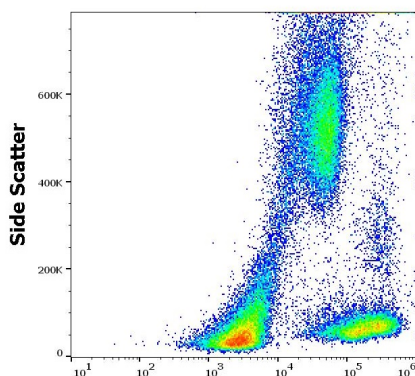
Properties

Form	Liquid
Purification	Purified from ascites by protein-A affinity chromatography.

Purity	> 95% (by SDS-PAGE)
Buffer	PBS (pH 7.4) and 15 mM Sodium azide
Preservative	15 mM Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

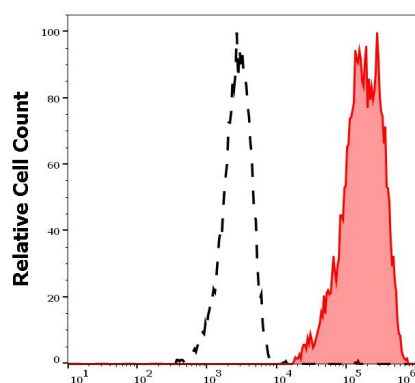
Bioinformation

Database links	GeneID: 3683 Human Swiss-port # P20701 Human
Gene Symbol	ITGAL
Gene Full Name	integrin, alpha L (antigen CD11A (p180), lymphocyte function-associated antigen 1; alpha polypeptide)
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 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.
Function	Integrin alpha-L/beta-2 is a receptor for ICAM1, ICAM2, ICAM3 and ICAM4. It is involved in a variety of immune phenomena including leukocyte-endothelial cell interaction, cytotoxic T-cell mediated killing, and antibody dependent killing by granulocytes and monocytes. [UniProt]
Research Area	Developmental Biology antibody; Immune System antibody; Signaling Transduction antibody
Calculated Mw	129 kDa
PTM	In resting T-cells, up to 40% of surface ITGAL is constitutively phosphorylated. Phosphorylation causes conformational changes needed for ligand binding and is necessary for activation by some physiological agents.



ARG62708 anti-CD11a / LFA1 alpha antibody [MEM-83] FACS image

Flow Cytometry: Human peripheral blood cells stained with ARG62708 anti-CD11a / LFA1 alpha antibody [MEM-83] at 1 μ g/ml dilution, followed by APC-conjugated Goat anti-Mouse antibody.



ARG62708 anti-CD11a / LFA1 alpha antibody [MEM-83] FACS image

Flow Cytometry: Separation of human CD11a positive lymphocytes (red-filled) from CD11a negative blood debris (black-dashed). Human peripheral whole blood stained with ARG62708 anti-CD11a / LFA1 alpha antibody [MEM-83] at 1 μ g/ml dilution, followed by APC-conjugated Goat anti-Mouse antibody.