Datasheet for ABIN2749010
anti-ITGAL antibody

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Overview

Quantity:	0.1 mg
Target:	ITGAL
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This ITGAL antibody is un-conjugated
Application:	Flow Cytometry (FACS), Immunoprecipitation (IP), Functional Studies (Func)

Product Details

Immunogen:	Leukocytes from a patient suffering from a LGL-type leukaemia.
Clone:	MEM-25
Isotype:	IgG1
Specificity:	The antibody MEM-25 reacts with an extracellular epitope of 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.
Cross-Reactivity (Details):	Human
Purification:	Purified by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)
Endotoxin Level:	Endotoxin level is less than 0.01 EU/µg of the protein, as determined by the LAL test.

Target Details

Target:	ITGAL
Alternative Name:	CD11a (ITGAL Products)
Background:	Integrin subunit alpha L,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.,LFA-1, LFA1A, ITGAL
Gene ID:	3683
UniProt:	P20701
Pathways:	Activated T Cell Proliferation, Integrin Complex

Application Details

Application Notes:	Functional application: The antibody MEM-25 partially blocks binding of LFA-1 complex to ICAM-1. Immunoprecipitation: Excellent antibody for immunoaffinity purification of LFA-1 complex. Flow cytometry: Recommended dilution: 2 μg/mL.
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4
Preservative:	Azide free
Storage:	4 °C

Handling

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Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

Product cited in:	Aubert, Yoon, Sloan, Spear, Jerome: "The virological synapse facilitates herpes simplex virus entry into T cells." in: **Journal of virology**, Vol. 83, Issue 12, pp. 6171-83, (2009) (PubMed).
	Wang, Kwas, Wu: "Intercellular adhesion molecule 1 (ICAM-1), but not ICAM-2 and -3, is important for dendritic cell-mediated human immunodeficiency virus type 1 transmission." in: **Journal of virology**, Vol. 83, Issue 9, pp. 4195-204, (2009) (PubMed).
	Ottonello, Epstein, Mancini, Dapino, Dallegri: "Monoclonal LYM-1 antibody-dependent cytolysis by human neutrophils exposed to GM-CSF: auto-regulation of target cell attack by cathepsin G." in: **Journal of leukocyte biology**, Vol. 75, Issue 1, pp. 99-105, (2004) (PubMed).
	Mathison, Befus, Davison, Woodman: "Modulation of neutrophil function by the tripeptide feG." in: **BMC immunology**, Vol. 4, pp. 3, (2003) (PubMed).
	Hajishengallis, Martin, Sojar, Sharma, Schifferle, DeNardin, Russell, Genco: "Dependence of bacterial protein adhesins on toll-like receptors for proinflammatory cytokine induction." in: **Clinical and diagnostic laboratory immunology**, Vol. 9, Issue 2, pp. 403-11, (2002) (PubMed).
	There are more publications referencing this product on: Product page

Images
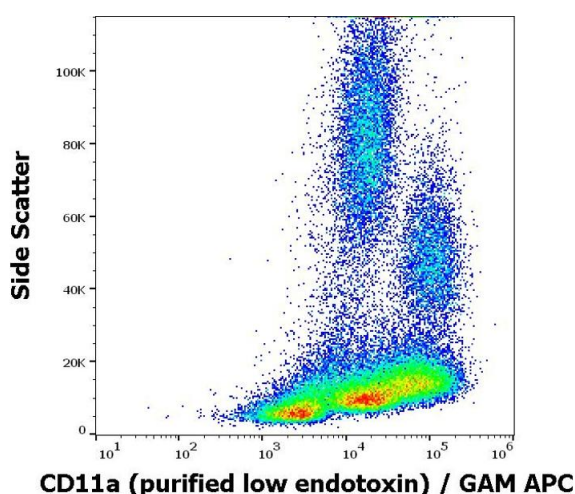
Flow Cytometry

Image 1. Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD11a (MEM-25) purified antibody (low endotoxin, concentration in sample 1 µg/mL) GAM APC.
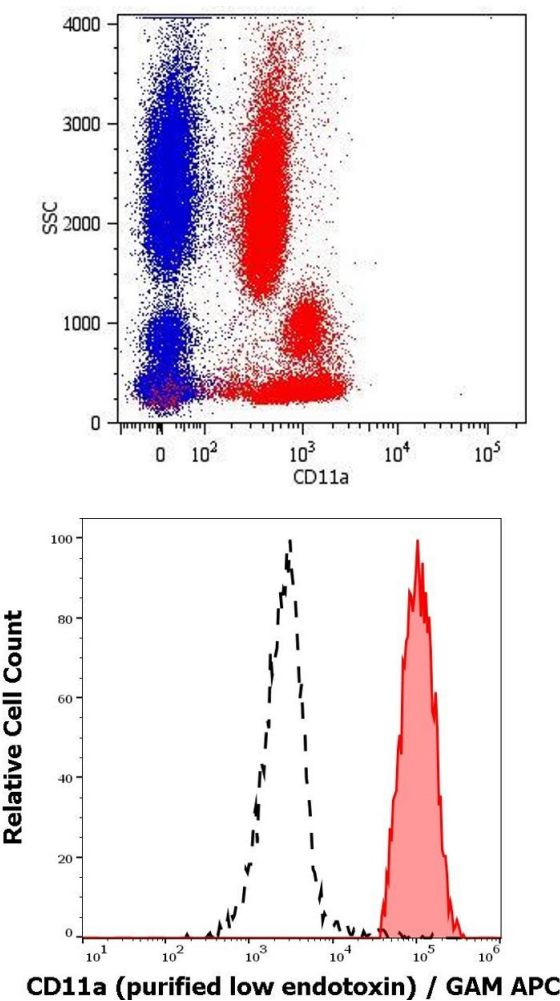
Images

Flow Cytometry

Image 2. Surface staining of human peripheral blood cells with anti-human CD11a (MEM-25) PE.

CD11a (purified low endotoxin) / GAM APC

Flow Cytometry

Image 3. Separation of human monocytes (red-filled) from blood debris (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD11a (MEM-25) purified antibody (low endotoxin, concentration in sample 1 µg/mL) GAM APC.