

Datasheet for ABIN93950
anti-ITGAL antibody (Biotin)



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Overview

Quantity:	0.1 mg
Target:	ITGAL
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This ITGAL antibody is conjugated to Biotin
Application:	Flow Cytometry (FACS), Immunoprecipitation (IP)

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 antibody is conjugated with biotin LC-NHS ester under optimum conditions and unconjugated antibody and free biotin are removed by size-exclusion chromatography.

Target Details

Target:	ITGAL
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Target Details

Alternative Name:	CD11a (ITGAL Products)
Background:	<p>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</p>
Gene ID:	3683
UniProt:	P20701
Pathways:	Activated T Cell Proliferation , Integrin Complex

Application Details

Application Notes:	Flow cytometry: Recommended dilution: 2-3 µg/mL.
Comment:	The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Do not freeze.

Handling

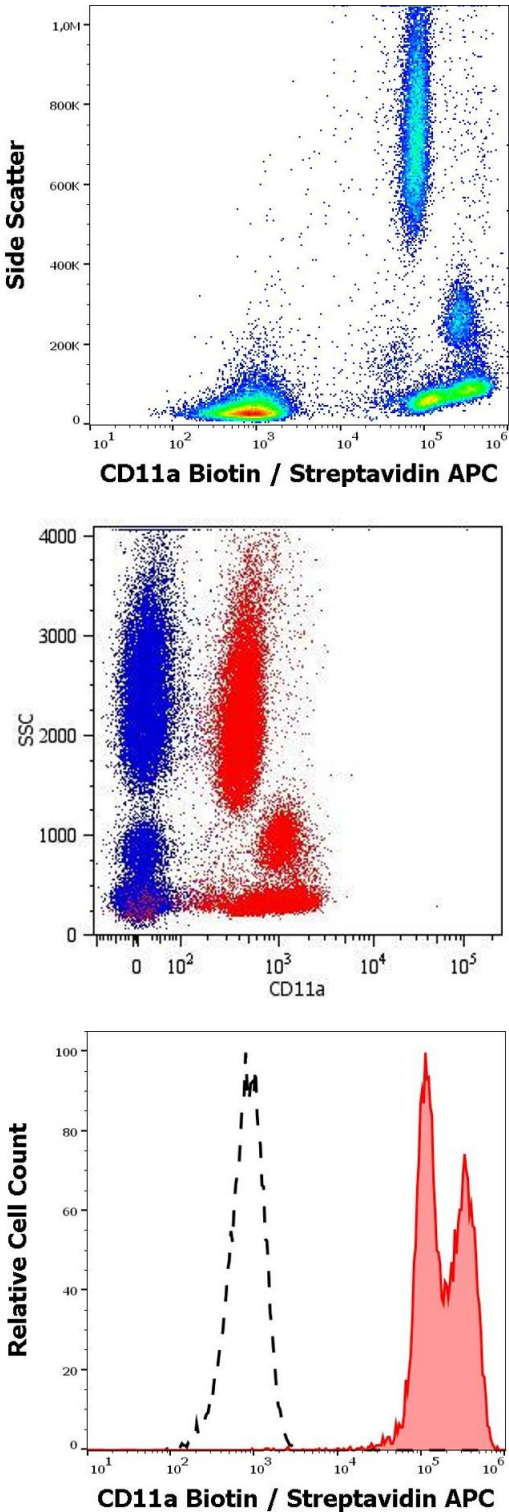
Avoid prolonged exposure to light.

Storage: 4 °C

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](#)



Flow Cytometry

Image 1. Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD11a (MEM-25) Biotin antibody (concentration in sample 0,3 μ g/mL, Streptavidin APC).

Flow Cytometry

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

Flow Cytometry

Image 3. Separation of human lymphocytes (red-filled) from CD45 negative blood debris (black-dashed) in flow cytometry analysis (surface staining) of peripheral whole blood stained using anti-human CD11a (MEM-25) Biotin antibody (concentration in sample 0,3 μ g/mL, Streptavidin APC).