PE/Cyanine5 anti-human CD11a Antibody

Catalog# / Size	301210 / 100 tests
Clone	HI111
Regulatory Status	RUO
Workshop	IV N231
Other Names	LFA-1α chain, Integrin αL subunit, αL Integrin, ITGAL
Isotype	Mouse IgG1, κ
Description	CD11a is a 170-180 kD type I transmembrane glycoprotein also known as LFA-1α chain and integrin α_L subunit. CD11a non-covalently associates with integrin β_2 (CD18) to form LFA-1. It is expressed on all leukocytes, including B and T lymphocytes, monocytes, macrophages, neutrophils, basophils and eosinophils. It is absent on non-hematopoietic tissues and platelets. CD11a plays a central role in leukocyte cell-cell interactions and is important in lymphocyte costimulation. CD11a/CD18 binds to ICAM-1 (CD54), ICAM-2 (CD102), and ICAM-3 (CD50).

Product Details

Verified Reactivity	Human
Reported Reactivity	African Green, Baboon, Cow, Capuchin monkey, Chimpanzee, Cynomolgus, Dog, Horse, Rabbit, Sheep
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE/Cyanine5 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze.**
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Clone HI111 epitope maps to the top region of the I domain that is close to the putative ligand-binding site surrounding the MIDAS (metal ion-dependent adhesion site). HI111 is specific for the closed confirmation of the integrin[8]. Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections, Western blotting[2], and blocking of cell-cell interaction and inhibition the binding of ICAM-1[4]. This clone was tested in-house and does not work on formalin fixed paraffin-embedded (FFPE) tissue. The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 301233 & 301234).
Additional Product Notes	BioLegend is in the process of converting the name PE/Cy5 to PE/Cyanine5. The dye molecule remains the same, so you should expect the same quality and performance from our PE/Cyanine5 products. Please contact Technical Service if you have any questions.
Application References **(PubMed link indicates**	1. Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press New York. 2. Leite F, *et al.* 2002. *Infec. Immun.* 70:4336.

BioLegend citation)	3. Jiang Y, *et al.* 2005. *Clin. Hemorheol. Microcircul.* 32:261. 4. BTchard D, *et al.* 2001. *J. Immunol.* 167:3099. 5. Sithu SD, *et al.* 2007. *J. Biol. Chem.* doi:10.1074/jbc.M611273200. 6. Choi EY, *et al.* 2008. *Blood* 111:3607. PubMed 7. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC) 8. Ma Q, *et al.* 2002. *J. Biol. Chem.* 277:10638.
RRID	AB_314148 (BioLegend Cat. No. 301210)

Antigen Details

Structure	Integrin, type I transmembrane glycoprotein, noncovalently linked with integrin β_2 (CD18) forms LFA-1, 170-180 kD
Distribution	Leukocytes
Function	Adhesion, costimulation
Ligand/Receptor	ICAM-1(CD54), ICAM-2(CD102), ICAM-3(CD50)
Cell Type	Leukocytes, Tregs
Biology Area	Cell Adhesion, Cell Biology, Costimulatory Molecules, Immunology, Innate Immunity, Neuroinflammation, Neuroscience
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	1. Lub M, *et al.* 1995. *Immunol. Today* 16:479. 2. Parsons J. 1996. *Curr. Opin. Cell Biol.* 8:146.
Gene ID	3683

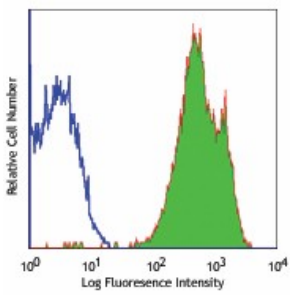
Related Protocols

Cell Surface Flow Cytometry Staining Protocol

Other Formats

APC anti-human CD11a, Biotin anti-human CD11a, FITC anti-human CD11a, PE anti-human CD11a, PE/Cyanine5 anti-human CD11a, Purified anti-human CD11a, Alexa Fluor® 488 anti-human CD11a, Alexa Fluor® 647 anti-human CD11a, PE/Cyanine7 anti-human CD11a, Alexa Fluor® 594 anti-human CD11a, Purified anti-human CD11a (Maxpar® Ready), APC/Fire™ 750 anti-human CD11a, Alexa Fluor® 700 anti-human CD11a, PerCP/Cyanine5.5 anti-human CD11a, PE/Dazzle™ 594 anti-human CD11a, Ultra-LEAF™ Purified anti-human CD11a, APC/Cyanine7 anti-human CD11a

Product Data



Human peripheral blood lymphocytes stained with HI111 PE/Cyanine5

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