

PE anti-human CD11a Antibody

Catalog# / Size	301207 / 25 tests 301208 / 100 tests
Clone	HI111
Regulatory Status	RUO
Workshop	IV N231
Other Names	LFA-1 α chain, Integrin α L subunit, α L Integrin, ITGAL
Isotype	Mouse IgG1, κ
Description	CD11a is a 170-180 kD type I transmembrane glycoprotein also known as LFA-1 α 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 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 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l 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/ μ g, Azide-Free, 0.2 μ m filtered) is recommended for functional assays (Cat. No. 301233 & 301234).
Application References	1. Knapp W, <i>et al.</i> 1989. Leucocyte Typing IV. Oxford University Press New York. 2. Leite F, <i>et al.</i> 2002. <i>Infect. Immun.</i> 70:4336. 3. Jiang Y, <i>et al.</i> 2005. <i>Clin. Hemorheol. Microcircul.</i> 32:261. 4. BTchard D, <i>et al.</i> 2001. <i>J. Immunol.</i> 167:3099. 5. Sithu SD, <i>et al.</i> 2007. <i>J. Biol. Chem.</i> doi:10.1074/jbc.M611273200.
(PubMed link indicates BioLegend citation)	

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.

Product Citations

1. Sonoda S, *et al.* 2022. *STAR Protoc.* 3:101386. [PubMed](#)
2. Kachlany M 2014. *Microbiology.* 160:2443. [PubMed](#)
3. Figueroa-Romero C, *et al.* 2022. *Front Immunol.* 13:773288. [PubMed](#)
4. Lin JR *et al.* 2018. *eLife.* 7 pii: e31657. [PubMed](#)
5. Velázquez-Avila M, *et al.* 2019. *Leukemia.* 33:1337. [PubMed](#)
6. Li C, *et al.* 2020. *Immunity.* 52(1):201-202. [PubMed](#)
7. Nicol B, *et al.* 2017. *J Autoimmun.* . 10.1016/j.jaut.2017.10.005. [PubMed](#)
8. Chen EW, *et al.* 2019. *Front Immunol.* 10:1718. [PubMed](#)

RRID

AB_314145 (BioLegend Cat. No. 301207)
 AB_314146 (BioLegend Cat. No. 301208)

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, <i>et al.</i> 1995. <i>Immunol. Today</i> 16:479. 2. Parsons J. 1996. <i>Curr. Opin. Cell Biol.</i> 8:146.
Gene ID	3683

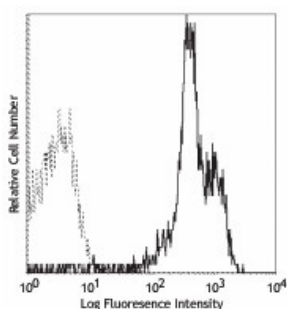
Related Protocols

[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

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