

## PerCP/Cyanine5.5 anti-human CD11a Antibody

<b>Catalog# / Size</b>	301229 / 25 tests 301230 / 100 tests
<b>Clone</b>	HI111
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	IV N231
<b>Other Names</b>	LFA-1 $\alpha$ chain, Integrin $\alpha$ L subunit, $\alpha$ L Integrin, ITGAL
<b>Isotype</b>	Mouse IgG1, $\kappa$
<b>Description</b>	CD11a is a 170-180 kD type I transmembrane glycoprotein also known as LFA-1 $\alpha$ chain and integrin $\alpha$ <sub>L</sub> subunit. CD11a non-covalently associates with integrin $\beta$ <sub>2</sub> (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

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<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	African Green, Baboon, Cow, Capuchin monkey, Chimpanzee, Cynomolgus, Dog, Horse, Rabbit, Sheep
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with PerCP/Cyanine5.5 under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 $\mu$ l per million cells in 100 $\mu$ l staining volume or 5 $\mu$ l per 100 $\mu$ l of whole blood.  * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application Notes</b>	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 conformation of the integrin <sup>8</sup> . Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections, Western blotting <sup>2</sup> , and blocking of cell-cell interaction and inhibition the binding of ICAM-1 <sup>4</sup> . 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/ $\mu$ g, Azide-Free, 0.2 $\mu$ m filtered) is recommended for functional assays (Cat. No. 301233 & 301234).
<b>Additional Product Notes</b>	BioLegend is in the process of converting the name PerCP/Cy5.5 to PerCP/Cyanine5.5. The dye molecule remains the same, so you should expect the same quality and performance from our PerCP/Cyanine5.5 products. Contact <a href="#">Technical Service</a> if you have any questions.
<b>Application References</b>	

(PubMed link indicates BioLegend citation)

1. Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press New York.
2. Leite F, *et al.* 2002. *Infect. Immun.* 70:4336.
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\_2721707 (BioLegend Cat. No. 301229)  
AB\_2721708 (BioLegend Cat. No. 301230)

## Antigen Details

<b>Structure</b>	Integrin, type I transmembrane glycoprotein, noncovalently linked with integrin $\beta_2$ (CD18) forms LFA-1, 170-180 kD
<b>Distribution</b>	Leukocytes
<b>Function</b>	Adhesion, costimulation
<b>Ligand/Receptor</b>	ICAM-1(CD54), ICAM-2(CD102), ICAM-3(CD50)
<b>Cell Type</b>	Leukocytes, Tregs
<b>Biology Area</b>	Cell Adhesion, Cell Biology, Costimulatory Molecules, Immunology, Innate Immunity, Neuroinflammation, Neuroscience
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	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.
<b>Gene ID</b>	<a href="#">3683</a>

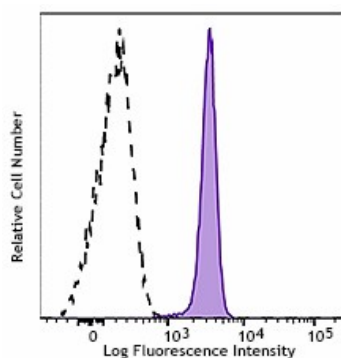
## Related Protocols

[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 were stained CD11a (clone HI111) PerCP/Cyanine5.5 (filled histogram) or mouse IgG1, ? PerCP/Cyanine5.5 isotype control (open histogram).

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