

## Biotin anti-human CD11c Antibody

<b>Catalog# / Size</b>	301612 / 100 µg
<b>Clone</b>	3.9
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	III NL707
<b>Other Names</b>	Integrin αX subunit, CR4, p150, ITGAX
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	CD11c is a 145-150 kD type I transmembrane glycoprotein also known as integrin αX and CR4. CD11c non-covalently associates with integrin β2 (CD18) and is expressed on monocytes/macrophages, dendritic cells, granulocytes, NK cells, and subsets of T and B cells. CD11c has been reported to play a role in adhesion and CTL killing through its interactions with fibrinogen, CD54, and IC3b.

### Product Details

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<b>Verified Reactivity</b>	Human, Cynomolgus, Rhesus
<b>Reported Reactivity</b>	African Green, Baboon, Chimpanzee, Squirrel Monkey
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. <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 ≤2.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application Notes</b>	<p>Clone 3.9 preferentially binds the activated form of CD11c, is specific for the I domain of CD11c, and is able to partially block the binding of CD11c and ICAM-4. 3.9 binding is divalent cation dependent<sup>12</sup>. While analyzing blood, it is best to use heparin as the anti-coagulant and not EDTA. Since the ability of clone 3.9 to bind to its target is divalent cation dependent, the usage of EDTA as an anti-coagulant may be detrimental to staining due to its chelating properties.</p> <p>Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections<sup>4</sup>, and functional assays<sup>5,6</sup>. The LEAF™ purified antibody (Endotoxin &lt;0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 301616). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 301632) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin &lt;0.01 EU/µg).</p>
<b>Application References</b>	<ol style="list-style-type: none"><li>Schlossman S, <i>et al.</i> Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.</li><li>Knapp W, <i>et al.</i> 1989. Leucocyte Typing IV Oxford University Press. New York.</li><li>McMichael A, <i>et al.</i> Eds. 1987. Leucocyte Typing III Oxford University Press. New York.</li><li>Vainer B, <i>et al.</i> 2000. <i>Am. J. Surg. Pathol.</i> 24:1115. (IHC)</li><li>Ottonello L, <i>et al.</i> 1999. <i>Blood</i> 93:3505.</li><li>Metelitsa LS, <i>et al.</i> 2002. <i>Blood</i> 99:4166.</li><li>Sadhu C, <i>et al.</i> 2007. <i>J. Leukoc. Biol.</i> doi:10.1189/jlb.1106680. <a href="#">PubMed</a></li><li>Ihanus E, <i>et al.</i> 2007. <i>Blood</i> 109:802-810.</li></ol>
<b>(PubMed link indicates BioLegend citation)</b>	

9. Gurer C, *et al.* 2008. *Blood* 112:1231. [PubMed](#)
10. Asai A, *et al.* 2009. *J. Lipid Res.* 50:95. [PubMed](#)
11. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
12. Sadhu C, *et al.* 2008. *J. Immunoass. Immunoch.* 29:42. (FC)

## Product Citations

1. He J, *et al.* 2020. *Cell Reports.* 29(9):2718-2730.e6.. [PubMed](#)
2. Omer OS, *et al.* 2020. *Methods Mol Biol.* 2121:199. [PubMed](#)
3. Hirota K *et al.* 2018. *Immunity.* 48(6):1220-1232 . [PubMed](#)

## RRID

AB\_493021 (BioLegend Cat. No. 301612)

## Antigen Details

<b>Structure</b>	Integrin, type I transmembrane glycoprotein, associates with integrin $\beta_2$ (CD18), 145-150 kD
<b>Distribution</b>	Myeloid, dendritic cells, NK cells, B cells and T cell subsets
<b>Function</b>	Adhesion, CTL killing
<b>Ligand/Receptor</b>	CD54, fibrinogen, iC3b, ICAM-1, ICAM-4
<b>Cell Type</b>	B cells, Dendritic cells, Neutrophils, NK cells, T cells, Tregs
<b>Biology Area</b>	Cell Adhesion, Cell Biology, Costimulatory Molecules, Immunology, Innate Immunity, Neuroscience, Neuroscience Cell Markers
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Petty H. 1996. <i>Immunol. Today</i> 17:209.</li> <li>2. Springer T. 1994. <i>Cell</i> 76:301.</li> <li>3. Ihanus E, <i>et al.</i> 2007. <i>Blood</i> 109:802-810.</li> </ol>
<b>Gene ID</b>	<a href="#">3687</a>

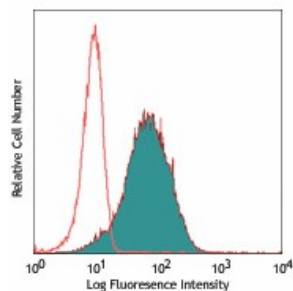
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

FITC anti-human CD11c, PE anti-human CD11c, Purified anti-human CD11c, PE/Cyanine7 anti-human CD11c, PE/Cyanine5 anti-human CD11c, Biotin anti-human CD11c, APC anti-human CD11c, Alexa Fluor® 488 anti-human CD11c, Alexa Fluor® 647 anti-human CD11c, Pacific Blue™ anti-human CD11c, PerCP/Cyanine5.5 anti-human CD11c, Brilliant Violet 421™ anti-human CD11c, Brilliant Violet 711™ anti-human CD11c, Ultra-LEAF™ Purified anti-human CD11c, Brilliant Violet 510™ anti-human CD11c, Brilliant Violet 605™ anti-human CD11c, Brilliant Violet 650™ anti-human CD11c, Purified anti-human CD11c (Maxpar® Ready), PE/Dazzle™ 594 anti-human CD11c, Brilliant Violet 785™ anti-human CD11c, Alexa Fluor® 700 anti-human CD11c, APC/Fire™ 750 anti-human CD11c, Spark Red™ 718 anti-human CD11c

## Product Data



Human peripheral blood granulocytes stained with biotinylated 3.9, followed by Sav-PE

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