

## Alexa Fluor<sup>®</sup> 700 anti-human CD11c Antibody

<b>Catalog# / Size</b>	301647 / 25 tests 301648 / 100 tests
<b>Clone</b>	3.9
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	III NL707
<b>Other Names</b>	Integrin $\alpha$ X subunit, CR4, p150, ITGAX
<b>Isotype</b>	Mouse IgG1, $\kappa$
<b>Description</b>	CD11c is a 145-150 kD type I transmembrane glycoprotein also known as integrin $\alpha$ X and CR4. CD11c non-covalently associates with integrin $\beta$ 2 (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

<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 and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor <sup>®</sup> 700 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>	<p>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 <math>\mu</math>l per million cells in 100 <math>\mu</math>l staining volume or 5 <math>\mu</math>l per 100 <math>\mu</math>l of whole blood.</p> <p>* Alexa Fluor<sup>®</sup> 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor<sup>®</sup> 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.</p> <p>Alexa Fluor<sup>®</sup> and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p><a href="#">View full statement regarding label licenses</a></p>
<b>Excitation Laser</b>	Red Laser (633 nm)
<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/<math>\mu</math>g, Azide-Free, 0.2 <math>\mu</math>m filtered) is recommended for functional assays (Cat. No. 301616). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No.</p>

301632) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/μg).

#### Application References

(PubMed link indicates BioLegend citation)

1. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
2. Knapp W, *et al.* 1989. Leucocyte Typing IV Oxford University Press. New York.
3. McMichael A, *et al.* Eds. 1987. Leucocyte Typing III Oxford University Press. New York.
4. Vainer B, *et al.* 2000. *Am. J. Surg. Pathol.* 24:1115. (IHC)
5. Ottonello L, *et al.* 1999. *Blood* 93:3505.
6. Metelitsa LS, *et al.* 2002. *Blood* 99:4166.
7. Sadhu C, *et al.* 2007. *J. Leukoc. Biol.* doi:10.1189/jlb.1106680. [PubMed](#)
8. Ihanus E, *et al.* 2007. *Blood* 109:802-810.
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. Cillo AR, *et al.* 2021. *Cell Rep Med.* 2:100476. [PubMed](#)
2. Teng F, *et al.* 2021. *Cell Rep.* 37:110051. [PubMed](#)

#### RRID

AB\_2819922 (BioLegend Cat. No. 301647)  
AB\_2819923 (BioLegend Cat. No. 301648)

## Antigen Details

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<b>Structure</b>	Integrin, type I transmembrane glycoprotein, associates with integrin β <sub>2</sub> (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

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[Cell Surface Flow Cytometry Staining Protocol](#)

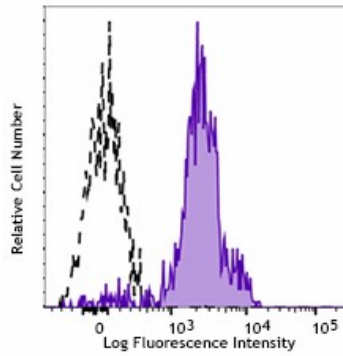
## Other Formats

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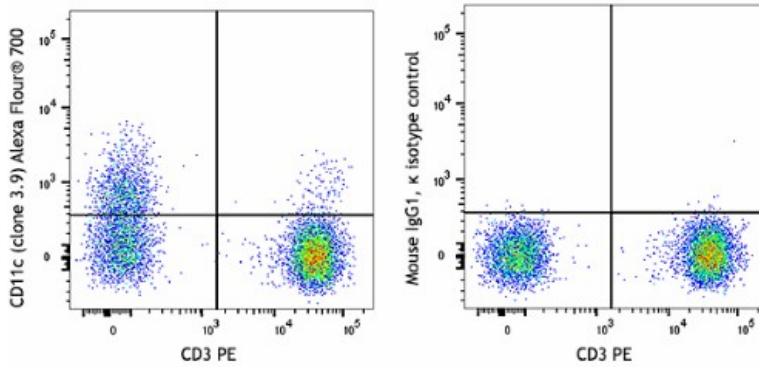
FITC anti-human CD11c, PE anti-human CD11c, Purified anti-human CD11c, PE/Cyanine7 anti-human CD11c, PE/Cyanine5 anti-human CD11c, Biotin anti-human CD11c, APC anti-human CD11c, Alexa Fluor® 488 anti-human CD11c, Alexa Fluor® 647 anti-human CD11c, Pacific Blue™ anti-human CD11c, PerCP/Cyanine5.5 anti-human 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

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Human peripheral blood monocytes were stained with Alexa Flour® 700 anti-human CD11c (clone 3.9) (filled histogram) or mouse IgG1, κ Alexa Flour® 700 isotype control (open histogram).



Human peripheral blood lymphocytes were stained with PE anti-human CD3 and Alexa Flour® 700 anti-human CD11c (clone 3.9) (left) or mouse IgG1, κ Alexa Flour® 700 isotype control (right).

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