

## Ultra-LEAF™ Purified anti-human CD11c Antibody

<b>Catalog# / Size</b>	301631 / 100 µg 301632 / 1 mg
<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 α <sub>X</sub> and CR4. CD11c non-covalently associates with integrin β <sub>2</sub> (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>	0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.01 EU/µg of the protein (<0.001 ng/µg of the protein) as determined by the LAL test.
<b>Preparation</b>	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.
<b>Concentration</b>	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. 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. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
<b>Application</b>	<a href="#">FC - Quality tested</a> <a href="#">CyTOF® - Verified</a> <a href="#">IHC. Block - Reported in the literature, not verified in house</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 or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application Notes</b>	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.  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 <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 <0.01 EU/µg).
<b>Application References</b>	1. Schlossman S, <i>et al.</i> Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.

(PubMed link indicates BioLegend citation)

- Knapp W, *et al.* 1989. Leucocyte Typing IV Oxford University Press. New York.
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- Ottonello L, *et al.* 1999. *Blood* 93:3505.
- Metelitsa LS, *et al.* 2002. *Blood* 99:4166.
- Sadhu C, *et al.* 2007. *J. Leukoc. Biol.* doi:10.1189/jlb.1106680. [PubMed](#)
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- Sadhu C, *et al.* 2008. *J. Immunoass. Immunoch.* 29:42. (FC)

RRID AB\_2814120 (BioLegend Cat. No. 301631)  
AB\_2561480 (BioLegend Cat. No. 301632)

## 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>	1. Petty H. 1996. <i>Immunol. Today</i> 17:209. 2. Springer T. 1994. <i>Cell</i> 76:301. 3. Ihanus E, <i>et al.</i> 2007. <i>Blood</i> 109:802-810.
<b>Gene ID</b>	<a href="#">3687</a>

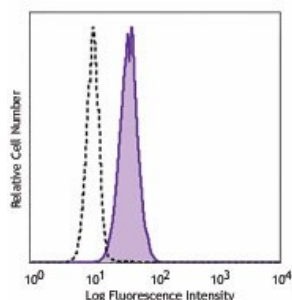
## Related Protocols

[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

## Product Data



Human peripheral blood granulocytes were stained with Ultra-LEAF™ purified CD11c (clone 3.9) (filled histogram) or LEAF™ purified mouse IgG1,  $\kappa$  isotype control (open histogram), followed by anti-mouse IgG FITC.

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