

Purified anti-human CD11c Antibody

Catalog# / Size	301601 / 25 µg 301602 / 100 µg
Clone	3.9
Regulatory Status	RUO
Workshop	III NL707
Other Names	Integrin αX subunit, CR4, p150, ITGAX
Isotype	Mouse IgG1, κ
Description	CD11c is a 145-150 kD type I transmembrane glycoprotein also known as integrin α _X and CR4. CD11c non-covalently associates with integrin β 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

Verified Reactivity	Human, Cynomolgus, Rhesus
Reported Reactivity	African Green, Baboon, Chimpanzee, Squirrel Monkey
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	FC - Quality tested CyTOF® - Verified IHC - Reported in the literature, not verified in house
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 ≤2.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	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 ¹² . 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 ⁴ , and functional assays ^{5,6} . 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).
Application References	1. Schlossman S, <i>et al.</i> Eds. 1995. Leucocyte Typing V. Oxford University Press. New York. 2. Knapp W, <i>et al.</i> 1989. Leucocyte Typing IV Oxford University Press. New York. 3. McMichael A, <i>et al.</i> Eds. 1987. Leucocyte Typing III Oxford University Press. New York. 4. Vainer B, <i>et al.</i> 2000. <i>Am. J. Surg. Pathol.</i> 24:1115. (IHC) 5. Ottonello L, <i>et al.</i> 1999. <i>Blood</i> 93:3505. 6. Metelitsa LS, <i>et al.</i> 2002. <i>Blood</i> 99:4166.
(PubMed link indicates BioLegend citation)	

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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. Santos R, *et al.* 2017. *Nat Commun.* . 10.1038/s41467-017-01760-5. [PubMed](#)
2. Dallari S, *et al.* 2017. *Nat Commun.* 8:14830. [PubMed](#)
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4. Ortiz AM, *et al.* 2018. *Nat Med.* 24:1313. [PubMed](#)
5. Eccles JD, *et al.* 2020. *Cell Rep.* 30:351. [PubMed](#)
6. Borges TJ, *et al.* 2018. *Nat Commun.* 9:3482. [PubMed](#)
7. Melo-Gonzalez F, *et al.* 2018. *J Biol Chem.* 293:8543. [PubMed](#)
8. Sadhu C, *et al.* 2007. *J Leukoc Biol.* 81:1395. [PubMed](#)
9. Gurer C, *et al.* 2008. *Blood.* 112:1231. [PubMed](#)
10. Asai A, *et al.* 2009. *J Lipid Res.* 50:4365. [PubMed](#)
11. Dinh HQ, *et al.* 2020. *Immunity.* 53(2):319-334.e6. [PubMed](#)
12. Kaufmann M, *et al.* 2021. *Med.* 2(3):296-312.e8. [PubMed](#)
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RRID

AB_314171 (BioLegend Cat. No. 301601)
 AB_314172 (BioLegend Cat. No. 301602)

Antigen Details

Structure	Integrin, type I transmembrane glycoprotein, associates with integrin β_2 (CD18), 145-150 kD
Distribution	Myeloid, dendritic cells, NK cells, B cells and T cell subsets
Function	Adhesion, CTL killing
Ligand/Receptor	CD54, fibrinogen, iC3b, ICAM-1, ICAM-4
Cell Type	B cells, Dendritic cells, Neutrophils, NK cells, T cells, Tregs
Biology Area	Cell Adhesion, Cell Biology, Costimulatory Molecules, Immunology, Innate Immunity, Neuroscience, Neuroscience Cell Markers
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	<ol style="list-style-type: none"> 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.
Gene ID	3687

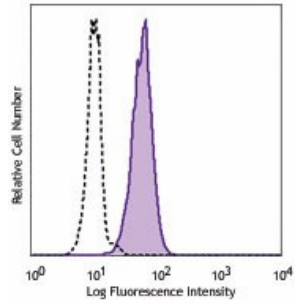
Related Protocols

[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 purified CD11c (clone 3.9) (filled histogram) or purified mouse IgG1, κ isotype control (open histogram), followed by anti-mouse IgG FITC.

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