PE/Cyanine7 anti-human CD11c Antibody

Catalog# / Size	301607 / 25 tests
	301608 / 100 tests
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 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

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 and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE/Cyanine7 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The CD11c antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze.**
Application	FC - Quality tested
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 5 μl per million cells in 100 μl staining volume or 5 μl per 100 μl of whole blood.
Excitation Laser	Blue Laser (488 nm)
	Green Laser (532 nm)/Yellow-Green Laser (561 nm)
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).
Additional Product Notes	BioLegend is in the process of converting the name PE/Cy7 to PE/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our PE/Cyanine7 products. Please contact Technical Service if you have any questions.

Application References	1. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.

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
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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. Waight JD, *et al.* 2018. Cancer Cell. 33:1033. PubMed
2. Darrah PA, *et al.* 2019. NPJ Vaccines. 4:21. PubMed
3. Woolsey C *et al.* 2019. Cell Rep. 28(12):3032-3046 . PubMed
4. Thompson EA, *et al.* 2019. Cell Rep. 28:1127. PubMed
5. Heger L, *et al.* 2018. Front Immunol. 9:744. PubMed
6. Zhang JA, *et al.* 2020. Front Immunol. 11:518. PubMed
7. Ols S, *et al.* 2020. Cell Reports. 30(12):3964-3971. PubMed
8. Marinho C, *et al.* 2014. PLoS One. 9:102014. PubMed
9. Palamides P, *et al.* 2016. Dis Model Mech. 9: 985 - 997. PubMed
10. Assadi G, *et al.* 2016. PLoS One. 11:e0168276. PubMed
11. Dai X, *et al.* 2021. Bioact Mater. 1.659027778. PubMed
12. Szabo PA, *et al.* 2021. Immunity. 54(4):797-814.e6. PubMed

RRID

AB_389350 (BioLegend Cat. No. 301607)
AB_389351 (BioLegend Cat. No. 301608)

Antigen Details

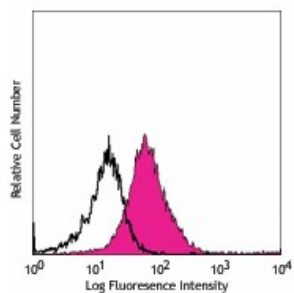| **Structure**	Integrin, type I transmembrane glycoprotein, associates with integrin β_2 (CD18), 145-150 kD
Distribution	Myeloid, dendritic cells, NK cells, B cells and T cell subsets
Function	Adhesion, CTL killing
Ligand/Receptor	CD54, fibrinogen, iC3b, ICAM-1, ICAM-4
Cell Type	B cells, Dendritic cells, 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	1. Petty H. 1996. *Immunol. Today* 17:209. 2. Springer T. 1994. *Cell* 76:301. 3. Ihanus E, *et al.* 2007. *Blood* 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 stained with 3.9 PE/Cyanine7

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