

Alexa Fluor[®] 594 anti-mouse CD11c Antibody

Catalog# / Size	117346 / 100 µg
Clone	N418
Regulatory Status	RUO
Other Names	αX integrin, integrin αX chain, CR4, p150, ITGAX
Isotype	Armenian Hamster IgG
Description	CD11c is a 150 kD glycoprotein also known as α _x integrin, CR4, and p150. CD11c forms a α _x β ₂ heterodimer with β ₂ integrin (CD18). It is primarily expressed on dendritic cells, NK cells, a subset of intestinal intraepithelial lymphocytes (IEL), and some activated T cells. The α _x β ₂ integrin plays an important role in cell-cell contact by binding its ligands: iC3b, fibrinogen, and CD54.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Armenian Hamster
Immunogen	Mouse spleen dendritic cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor [®] 594 under optimal conditions.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	IHC-F - Quality tested 3D IHC- Verified
Recommended Usage	<p>Each lot of this antibody is quality control tested by immunohistochemical staining on frozen tissue sections. For immunohistochemistry, a concentration range of 2.0 - 5.0 µg/mL is suggested. For 3D immunohistochemistry on formalin-fixed tissues, a concentration of 5.0 µg/mL is suggested. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>* Alexa Fluor[®] 594 has an excitation maximum of 590 nm, and a maximum emission of 617 nm.</p> <p>Alexa Fluor[®] and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p>View full statement regarding label licenses</p>
Excitation Laser	Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunoprecipitation ³ , immunohistochemical staining of acetone-fixed frozen sections ³ , immunofluorescence microscopy ^{5,9} (Alexa Fluor [®] 488 conjugated N418 was used for IHC in frozen sections ¹⁰), and spatial biology (IBEX) ^{22,23} .
Application References	<ol style="list-style-type: none">1. Granucci F, et al. 1997. <i>J. Immunol.</i> 159:1794.2. Stokes RW, et al. 1998. <i>J. Immunol.</i> 160:5514.3. Metlay JP, et al. 1990. <i>J. Exp. Med.</i> 171:1753. (IHC, IP)4. Ma XT, et al. 2006. <i>Cancer Research</i> 66:1169.5. Chin RK, et al. 2006. <i>J. Immunol.</i> 177:290. (IF)6. Cervantes-Barragan L, et al. 2007. <i>Blood</i> 109:1131. (FC) PubMed7. Turnquist HR, et al. 2007. <i>J. Immunol.</i> 178:7018. (FC) PubMed8. Benson MJ, et al. 2007. <i>J. Exp. Med.</i> doi:10.1084/jem.20070719. (FC) PubMed

9. You Y, *et al.* 2009. *J. Immunol.* 182:7343. (IF) [PubMed](#)
10. Roland CL, *et al.* 2009. *Mol. Cancer Res.* 8:1761. (IHC, FC) [PubMed](#)
11. Wikstrom M, *et al.* 2006. *J. Immunol.* 177:913. [PubMed](#)
12. Pericolini E, *et al.* 2008. *J. Leukocyte Biol.* 83:1286. [PubMed](#)
13. Randall LM, *et al.* 2008. *Infect. Immun.* 76:3312. [PubMed](#)
14. Fahlen-Yrild L, *et al.* 2009. *J. Immunol.* 183:5032. [PubMed](#)
15. Osterholzer JJ, *et al.* 2009. *J. Immunol.* 183:8044. [PubMed](#)
16. Bankoti J, *et al.* 2010. *Toxicol. Sci.* 115:422. (FC) [PubMed](#)
17. Eisenach PA, *et al.* 2010. *J Cell Sci.* 123:4182. [PubMed](#)
18. Leppin K, *et al.* 2014. *Invest. Ophthalmol. Vis. Sci.* 55:3603. [PubMed](#)
19. Sakai F, *et al.* 2014. *PLoS One.* 9:105370. [PubMed](#)
20. Gibbins JD, *et al.* 2014. *Blood.* 124:2953. [PubMed](#)
21. White CE, *et al.* 2015. *J Immunol.* 194:697. [PubMed](#)
22. Lu X, *et al.* 2015. *J Immunol.* 194:2011. [PubMed](#)
23. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci U S A.* 117:33455-65. (SB) [PubMed](#)
24. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

Product Citations

1. Baptista AP *et al.* 2019. *Immunity.* 50(5):1188-1201 . [PubMed](#)
2. Bittner-Eddy P, *et al.* 2016. *J Immunol.* 197: 1435 - 1446. [PubMed](#)
3. Haugh KA, *et al.* 2021. *eLife.* 0.416666666666667. [PubMed](#)
4. Sokol CL *et al.* 2018. *Immunity.* 49(3):449-463 . [PubMed](#)
5. Samarchith P Kurup *et al.* 2019. *Cell host & microbe.* 25(4):565-577 . [PubMed](#)
6. Adeegbe DO, *et al.* 2017. *Cancer Discov.* 0.8833333333. [PubMed](#)
7. De Pascalis R, *et al.* 2020. *PLoS One.* 15:e0237034. [PubMed](#)
8. Hofmann J, *et al.* 2021. *Front Immunol.* 11:599495. [PubMed](#)

RRID

AB_2563323 (BioLegend Cat. No. 117346)

Antigen Details

Structure	Integrin α -chain, associates with integrin β 2 (CD18), 150 kD
Distribution	Dendritic cells, NK cells, intestinal intraepithelial lymphocytes (IEL), some activated T cells
Function	Cellular adhesion
Ligand/Receptor	iC3b, fibrinogen
Cell Type	Dendritic cells, Epithelial cells, 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. Barclay A, <i>et al.</i> 1997. <i>The Leukocyte Antigen Facts Book</i> Academic Press. 2. Springer TA. 1994. <i>Cell</i> 76:301. 3. Lopez-Rodriguez C, <i>et al.</i> 1996. <i>J. Immunol.</i> 156:3780.
Gene ID	16411

Related Protocols

[Immunohistochemistry Protocol for Frozen Sections](#)

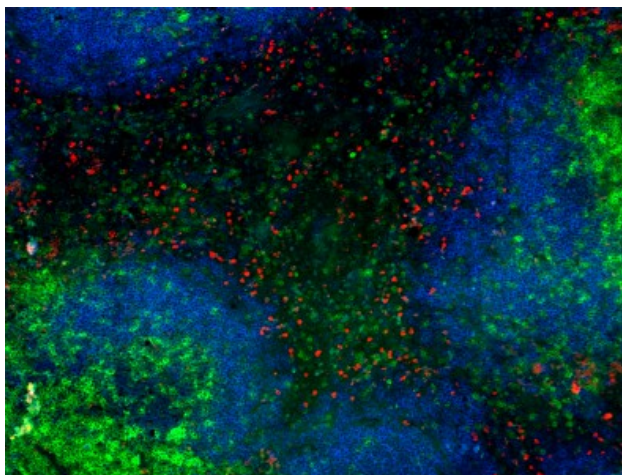
[Ce3D™ Tissue Clearing Kit](#)

Other Formats

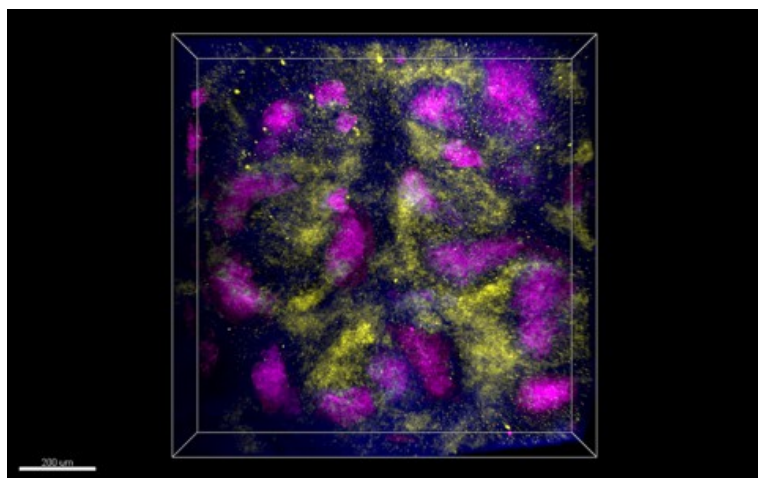
APC anti-mouse CD11c, Biotin anti-mouse CD11c, FITC anti-mouse CD11c, PE anti-mouse CD11c, Purified anti-mouse CD11c, Alexa Fluor® 488 anti-mouse CD11c, Alexa Fluor® 647 anti-mouse CD11c, PE/Cyanine5 anti-mouse CD11c, PE/Cyanine7 anti-mouse CD11c, Brilliant Violet 605™ anti-mouse CD11c, Alexa Fluor® 700 anti-mouse CD11c, Pacific Blue™ anti-mouse CD11c, APC/Cyanine7 anti-mouse CD11c, PerCP/Cyanine5.5 anti-mouse CD11c, PerCP anti-mouse CD11c, Brilliant Violet 421™ anti-mouse CD11c, Brilliant Violet 570™ anti-mouse CD11c, Brilliant Violet 785™ anti-mouse CD11c, Brilliant Violet 510™ anti-mouse CD11c, Brilliant Violet 650™ anti-mouse CD11c, Purified anti-mouse CD11c (Maxpar® Ready), Alexa Fluor® 594 anti-mouse CD11c, PE/Dazzle™ 594 anti-mouse CD11c, Brilliant Violet 711™ anti-mouse CD11c, APC/Fire™ 750 anti-mouse CD11c, TotalSeq™-A0106 anti-mouse CD11c, Brilliant Violet 750™ anti-mouse CD11c, TotalSeq™-B0106 anti-mouse CD11c, TotalSeq™-C0106 anti-

mouse CD11c, KIRAVIA Blue 520™ anti-mouse CD11c, Spark Blue™ 550 anti-mouse CD11c, Spark NIR™ 685 anti-mouse CD11c, Spark UV™ 387 anti-mouse CD11c, Spark Red™ 718 anti-mouse CD11c

Product Data



C57BL/6 mouse frozen spleen section was fixed with 4% paraformaldehyde (PFA) for 10 minutes at room temperature and blocked with 5% FBS plus 5% rat serum for 1 hour at room temperature. Then the section was stained with 5 µg/ml of CD11c (clone N418) Alexa Fluor® 594 (red), 2.5 µg/ml of CD3 (clone 145-2C11) Alexa Fluor® 647 (green), and 2.5 µg/ml of B220 (clone RA3-6B2) Alexa Fluor® 488 (blue) overnight at 4°C. The image was captured by 10X objective.



Paraformaldehyde-fixed (4%), 500 µm-thick mouse spleen section was processed according to the Ce3DTM Tissue Clearing Kit protocol (cat. no. 427701). The section was costained with anti-mouse CD11c Antibody (clone N418) Alexa Fluor® 594 at 5 µg/mL (yellow), and anti-mouse CD21/CD35 (CR2/CR1) Antibody (Clone 7E9) Alexa Fluor® 647 at 5 µg/mL (magenta) and counterstained with DAPI (blue). The section was then optically cleared and mounted in a sample chamber. The image was captured with a 10X objective using Zeiss 780 confocal microscope and processed by Imaris image analysis software.

[Watch the video.](#)

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