

APC/Cyanine7 anti-mouse CD11c Antibody

Catalog# / Size	117323 / 25 µg 117324 / 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 αX integrin, CR4, and p150. CD11c forms a αXβ2 heterodimer with β2 integrin (CD18). It is primarily expressed on dendritic cells, NK cells, a subset of intestinal intraepithelial lymphocytes (IEL), and some activated T cells. The αXβ2 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 APC/Cyanine7 under optimal conditions.
Concentration	0.2 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	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 = 1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Red Laser (633 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} .
Additional Product Notes	BioLegend is in the process of converting the name APC/Cy7 to APC/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our APC/Cyanine7 products. Please contact Technical Service if you have any questions.
Application References	<ol style="list-style-type: none"> 1. Granucci F, <i>et al.</i> 1997. <i>J. Immunol.</i> 159:1794. 2. Stokes RW, <i>et al.</i> 1998. <i>J. Immunol.</i> 160:5514. 3. Metlay JP, <i>et al.</i> 1990. <i>J. Exp. Med.</i> 171:1753. (IHC, IP) 4. Ma XT, <i>et al.</i> 2006. <i>Cancer Research</i> 66:1169. 5. Chin RK, <i>et al.</i> 2006. <i>J. Immunol.</i> 177:290. (IF) 6. Cervantes-Barragan L, <i>et al.</i> 2007. <i>Blood</i> 109:1131. (FC) PubMed 7. Turnquist HR, <i>et al.</i> 2007. <i>J. Immunol.</i> 178:7018. (FC) PubMed 8. Benson MJ, <i>et al.</i> 2007. <i>J. Exp. Med.</i> doi:10.1084/jem.20070719. (FC) PubMed 9. You Y, <i>et al.</i> 2009. <i>J. Immunol.</i> 182:7343. (IF) PubMed 10. Roland CL, <i>et al.</i> 2009. <i>Mol. Cancer Res.</i> 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. Sasaki I, *et al.* 2012. *Blood.* 120:4733. [PubMed](#)
2. Koyama M, *et al.* 2015. *J Exp Med.* 212: 1303 - 1321. [PubMed](#)
3. Sun L, *et al.* 2021. *Cancer Cell.* .: [PubMed](#)
4. Sierro F, *et al.* 2017. *Immunity.* 47:374. [PubMed](#)
5. Tomida S, *et al.* 2019. *Sci Rep.* 9:10751. [PubMed](#)
6. Yu X, *et al.* 2020. *Nat Commun.* 11:1110. [PubMed](#)
7. Heindl S, *et al.* 2021. *J Exp Med.* 218: [PubMed](#)
8. Xiong W, *et al.* 2022. *Nat Commun.* 13:1700. [PubMed](#)
9. Herz J, *et al.* 2015. *J Exp Med.* 212: 1153 - 1169. [PubMed](#)
10. Huang J, *et al.* 2022. *J Transl Med.* 20:496. [PubMed](#)
11. Kitagawa S, *et al.* 2022. *NPJ Vaccines.* 7:115. [PubMed](#)
12. Ortiz G, *et al.* 2020. *Front Immunol.* 11:1713. [PubMed](#)
13. Lino AC *et al.* 2018. *Immunity.* 49(1):120-133 . [PubMed](#)
14. Farsakoglu Y *et al.* 2019. *Cell reports.* 26(9):2307-2315 . [PubMed](#)
15. Aldon Y, *et al.* 2020. *J Immunol.* 204:903. [PubMed](#)
16. Devalaraja S, *et al.* 2020. *Cell.* 1098:180. [PubMed](#)
17. Sari G, *et al.* 2020. *Biochem Biophys Res Commun.* 510:524. [PubMed](#)
18. Clement M, *et al.* 2016. *PLoS Pathog.* 12:e1006050. [PubMed](#)
19. Yoshioka D, *et al.* 2016. *Antimicrob Agents Chemother.* 60: 6146 - 6154. [PubMed](#)
20. Shon W, *et al.* 2015. *Sci Rep.* 5:17305. [PubMed](#)
21. Han Y, *et al.* 2020. *Nat Commun.* 11:1776. [PubMed](#)
22. Periasamy S, *et al.* 2017. *Nat Commun.* 8:15564. [PubMed](#)
23. Choi H *et al.* 2019. *Cell Rep.* 27(3):806-819 . [PubMed](#)
24. Deslyper G, *et al.* 2021. *Parasitology.* 148:539. [PubMed](#)
25. Hayatsu N *et al.* 2017. *Immunity.* 47(2):268-283 . [PubMed](#)
26. Casali P, *et al.* 2021. *Front Immunol.* 12:761450. [PubMed](#)
27. Xu F, *et al.* 2022. *Cell Death Discov.* 8:142. [PubMed](#)
28. Haugh KA, *et al.* 2021. *eLife.* 0.416666666666667. [PubMed](#)
29. Sharma S, *et al.* 2015. *J Immunol.* 194:5529. [PubMed](#)
30. Yoshimi A, *et al.* 2019. *Nature.* 574:273. [PubMed](#)
31. Li Y, *et al.* 2022. *Clin Transl Immunology.* 11:e1362. [PubMed](#)
32. Metzger D, *et al.* 2015. *J Infect Dis.* 212: 445-452. [PubMed](#)
33. Dos Santos Dias L, *et al.* 2021. *PLoS Pathog.* e1009324:17. [PubMed](#)
34. Uchil PD *et al.* 2018. *Cell host & microbe.* 25(1):87-100 . [PubMed](#)
35. Devalaraja S, *et al.* 2020. *STAR Protoc.* 1:100188. [PubMed](#)
36. Kölle J, *et al.* 2022. *iScience.* 25:104440. [PubMed](#)
37. Salei N, *et al.* 2020. *J Am Soc Nephrol.* 31:257. [PubMed](#)
38. Zhao F, *et al.* 2022. *Front Immunol.* 13:873720. [PubMed](#)
39. Hurrell BP, *et al.* 2019. *Cell Rep.* 29:4509. [PubMed](#)
40. Liu D *et al.* 2019. *Immunity.* 51(1):64-76 . [PubMed](#)
41. Kotaki R, *et al.* 2020. *Sci Rep.* 10:13554. [PubMed](#)
42. Trompette A, *et al.* 2022. *Mucosal Immunol.* .: [PubMed](#)
43. Mansouri S, *et al.* 2021. *J Immunol.* 206:2233. [PubMed](#)
44. Zhang K, *et al.* 2014. *PLoS Pathog.* 10:1004385. [PubMed](#)
45. Furuya Y, *et al.* 2015. *PLoS Pathog.* 11: 1005180. [PubMed](#)
46. Wessel AW, *et al.* 2020. *Nat Commun.* 4.123611111. [PubMed](#)
47. Noah AC, *et al.* 2020. *J Appl Physiol (1985).* 473:128. [PubMed](#)
48. Proto JD *et al.* 2018. *Immunity.* 49(4):666-677 . [PubMed](#)
49. Friedman DJ, *et al.* 2021. *Cancer Immunol Res.* 9:952. [PubMed](#)
50. Mulas F, *et al.* 2020. *Cell Mol Immunol.* . [PubMed](#)
51. Viana C, *et al.* 2015. *PLoS One.* 10: 0130809. [PubMed](#)
52. Davis M, *et al.* 2015. *J Immunol.* 194:2219. [PubMed](#)
53. Suresh MV, *et al.* 2019. *JCI Insight.* 4:e133103. [PubMed](#)
54. Takano T, *et al.* 2020. *Front Immunol.* 11:1555. [PubMed](#)
55. Panea C, *et al.* 2021. *Commun Biol.* 4:913. [PubMed](#)
56. Ariyoshi Y, *et al.* 2016. *Gene Ther.* 10.1038/gt.2016.7. [PubMed](#)
57. Zeng W, *et al.* 2021. *STAR Protocols.* 2(1):100361. [PubMed](#)
58. Branchett WJ, *et al.* 2020. *Wellcome Open Research.* 0.278472222. [PubMed](#)
59. Zerif E, *et al.* 2020. *Int J Mol Sci.* 21:.. [PubMed](#)
60. Walsh SM, *et al.* 2021. *eLife.* 10:00. [PubMed](#)
61. Galle-Treger L, *et al.* 2016. *Nat Commun.* 7:13202. [PubMed](#)
62. Kim P, *et al.* 2015. *Infect Immun.* 83: 2992 - 3002. [PubMed](#)
63. Ballet R, *et al.* 2014. *PLoS Pathog.* 10:1004550. [PubMed](#)

64. Lin J, *et al.* 2021. Nat Commun. 12:5321. [PubMed](#)
65. Galle-Treger L, *et al.* 2020. J Allergy Clin Immunol. 145:502. [PubMed](#)
66. Shafiei-Jahani P, *et al.* 2021. Nat Commun. 12:2526. [PubMed](#)
67. Alam Z, *et al.* 2020. Cell Rep. 107825:31. [PubMed](#)
68. Echevarría-Vargas IM, *et al.* 2018. EMBO Mol Med. 10:e8446. [PubMed](#)
69. Galle-Treger L, *et al.* 2019. Nat Commun. 10:713. [PubMed](#)
70. Zhang W, *et al.* 2020. Nat Commun. 11:1187. [PubMed](#)
71. Nair S, *et al.* 2021. JCI Insight. 6:. [PubMed](#)
72. Yang X, *et al.* 2022. Front Immunol. 13:856230. [PubMed](#)
73. Mansouri S, *et al.* 2020. Mucosal Immunol. 0.954861111. [PubMed](#)
74. Sasaki Y, *et al.* 2015. PLoS One. 10: 0131176. [PubMed](#)
75. Spangenberg E, *et al.* 2019. Nat Commun. 10:3758. [PubMed](#)
76. Lee H, *et al.* 2017. J Immunol. 199:1453. [PubMed](#)
77. Matsumura T, *et al.* 2022. Nat Commun. 13:7064. [PubMed](#)
78. Shibuya M, *et al.* 2021. iScience. 24:103131. [PubMed](#)
79. Calderon B, *et al.* 2015. J Exp Med. 212: 1497-1512. [PubMed](#)
80. Guendel F, *et al.* 2020. Immunity. 53(5):1015-1032.e8. [PubMed](#)
81. Chakraborty M, *et al.* 2021. Cell Reports. 34(2):108609. [PubMed](#)
82. Draijer C, *et al.* 2018. Sci Rep. 8:5105. [PubMed](#)
83. Wang T *et al.* 2018. Immunity. 49(3):504-514 . [PubMed](#)
84. Darling R, *et al.* 2020. Int J Nanomedicine. 5.19375. [PubMed](#)
85. Clemente-Casares X, *et al.* 2017. Immunity. 47:974. [PubMed](#)
86. Zhao N, *et al.* 2018. J Clin Invest. 26:84. [PubMed](#)
87. Tulyeu J, *et al.* 2021. Curr Protoc. 1:e283. [PubMed](#)
88. Zheng Y, *et al.* 2022. J Immunol. 208:501. [PubMed](#)
89. Xiao Y, *et al.* 2021. Cell. 184:6037. [PubMed](#)
90. Issah Y, *et al.* 2021. Elife. 10:. [PubMed](#)
91. Yin X, *et al.* 2020. Cell Rep. 33:108278. [PubMed](#)
92. Huang WC, *et al.* 2020. Adv Mater. 32:e2005637. [PubMed](#)
93. Konda P, *et al.* 2022. Am J Cancer Res. 12:210. [PubMed](#)
94. Ubags ND, *et al.* 2021. J Allergy Clin Immunol. 1049:147. [PubMed](#)
95. Zhang L, *et al.* 2020. Cell. 442:181. [PubMed](#)
96. Sheng J, *et al.* 2021. eLife. 10:00. [PubMed](#)
97. Khan S, *et al.* 2016. J Exp Med. 213(13):2913-2929. [PubMed](#)
98. Ramanan D, *et al.* 2020. Cell. 181(6):1276-1290. [PubMed](#)
99. Mogilenko DA *et al.* 2019. Cell. 177(5):1201-1216 . [PubMed](#)
100. White JP *et al.* 2018. Cell. 175(5):1198-1212 . [PubMed](#)
101. Lerbs T, *et al.* 2020. JCI Insight. 5:00. [PubMed](#)
102. Zhu Y *et al.* 2017. The Journal of Neuroscience. 37(9):2362-2376 . [PubMed](#)
103. Lau A, *et al.* 2022. Sci Adv. 8:eabm0142. [PubMed](#)
104. Mansouri S, *et al.* 2021. J Immunol. 206:2233. [PubMed](#)
105. Strait AA, *et al.* 2021. Commun Biol. 4:1005. [PubMed](#)
106. Lucas ED, *et al.* 2020. Cell Reports. 33(2):108258. [PubMed](#)
107. Choi J, *et al.* 2013. PLoS Negl Trop Dis. 7:e1981. [PubMed](#)
108. Qi S, *et al.* 2020. Theranostics. 10:1814. [PubMed](#)
109. Kim I *et al.* 2015. Brain and behavior. 5(12):e00403 . [PubMed](#)
110. Kubli SP, *et al.* 2019. Nat Commun. 10:2678. [PubMed](#)
111. Aurélien Trompette *et al.* 2018. Immunity. 48(5):992-1005 . [PubMed](#)
112. Zhang SJ, *et al.* 2021. Adv Sci (Weinh). 8:2003410. [PubMed](#)
113. Hobsfield LA, *et al.* 2021. Elife. 10:. [PubMed](#)

RRID AB_830646 (BioLegend Cat. No. 117323)
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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	1. Barclay A, <i>et al.</i> 1997. The Leukocyte Antigen Facts Book 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

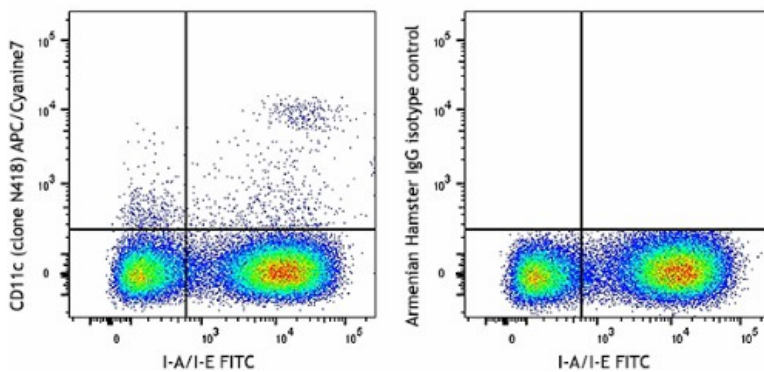
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

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 splenocytes were stained with I-A/I-E PE and CD11c (clone N418) APC/Cyanine7 (left) or Armenian hamster IgG APC/Cyanine7 isotype control (right).

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