

Brilliant Violet 570™ anti-mouse/human CD11b Antibody

Catalog# / Size	101233 / 125 µL
Clone	M1/70
Regulatory Status	RUO
Other Names	αM integrin, Mac-1, Mo1, CR3, Ly-40, C3biR, ITGAM
Isotype	Rat IgG2b, κ
Description	CD11b is a 170 kD glycoprotein also known as αM integrin, Mac-1 α subunit, Mol, CR3, and Ly-40. CD11b is a member of the integrin family, primarily expressed on granulocytes, monocytes/macrophages, dendritic cells, NK cells, and subsets of T and B cells. CD11b non-covalently associates with CD18 (β2 integrin) to form Mac-1. Mac-1 plays an important role in cell-cell interaction by binding its ligands ICAM-1 (CD54), ICAM-2 (CD102), ICAM-4 (CD242), iC3b, and fibrinogen.

Product Details

Verified Reactivity	Mouse, Human, Cynomolgus, Rhesus
Reported Reactivity	Chimpanzee, Baboon, Rabbit
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	C57BL/10 splenocytes
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 Brilliant Violet 570™ 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 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	<p>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. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>Brilliant Violet 570™ excites at 405 nm and emits at 570 nm. The bandpass filter 585/42 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 570™ is a trademark of Sirigen Group Ltd.</p> <p>Learn more about Brilliant Violet™.</p> <p>This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.</p>
Excitation Laser	Violet Laser (405 nm)
Application Notes	Clone M1/70 has been verified for immunocytochemistry (ICC) and frozen immunohistochemistry (IHC-F).

Additional reported applications (for relevant formats of this clone) include: immunoprecipitation^{1,4}, *in vitro* blocking^{3,9,12}, depletion^{2,8}, immunofluorescence microscopy^{6,7,10}, immunohistochemistry of acetone-fixed frozen sections^{5,11-13}, and spatial biology (IBEX)^{35,36}. For *in vivo* studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/μg, Azide-Free, 0.2 μm filtered) (Cat. No. 101248).

Application References

(PubMed link indicates BioLegend citation)

1. Springer T, *et al.* 1978. *Eur. J. Immunol.* 8:539. (IP)
2. Ault K and Springer T. 1981. *J. Immunol.* 126:359. (Deplete)
3. Springer TA, *et al.* 1982. *Immunol. Rev.* 68:171. (Block)
4. Ho MK and Springer TA. 1983. *J. Biol. Chem.* 258:2766. (IP)
5. Flotte TJ, *et al.* 1983. *Am. J. Pathol.* 111:112. (IHC)
6. Noel GJ, *et al.* 1990. *J. Clin. Invest.* 85:208. (IF)
7. Allen LA and Aderem A. 1996. *J. Exp. Med.* 184:627 (IF)
8. D'Amico A and Wu L. 2003. *J. Exp. Med.* 198:293. (Deplete)
9. Brickson SJ, *et al.* 2003. *Appl Physiol.* 95:969. (Block)
10. Clatworthy MR and Smith KG. 2004. *J. Exp. Med.* 199:717. (IF)
11. Hata H, *et al.* 2004. *J. Clin. Invest.* 114:582. (IHC)
12. Zhang Y, *et al.* 2002. *J. Immunol.* 168:3088. (IHC)
13. Iwasaki A and Kelsall BL. 2001. *J. Immunol.* 166:4884 (IHC, FC)
14. Tailleux L. 2003. *J. Exp. Med.* 197:121. (Block, FC)
15. Olver S, *et al.* 2006. *Cancer Research* 66:571. (FC)
16. Tan SL, *et al.* 2006. *J. Immunol.* 176:2872. (FC) [PubMed](#)
17. Ponomarev ED, *et al.* 2006. *J. Immunol.* 176:1402. (FC)
18. Dzhagalov I, *et al.* 2007. *Blood* 109:1620. (FC)
19. Fazilleau N, *et al.* 2007. *Nature Immunol.* 8:753.
20. Rasmussen JW, *et al.* 2006. *Infect. Immun.* 74:6590. [PubMed](#)
21. Napimoga MH, *et al.* 2008. *J. Immunol.* 180:609. [PubMed](#)
22. Elqaraz-Carmon V, *et al.* 2008. *J. Lipid. Res.* 49:1894. [PubMed](#)
23. Kim DD, *et al.* 2008. *Blood* 112:1109. [PubMed](#)
24. Guo Y, *et al.* 2008. *Blood* 112:480. [PubMed](#)
25. Norian LA, *et al.* 2009. *Cancer Res.* 69:3086. (FC) [PubMed](#)
26. Baumgartner CK, *et al.* 2010. *J. Immunol.* 184:573. [PubMed](#)
27. Charles N, *et al.* 2010. *Nat. Med.* 16:701. (FC) [PubMed](#)
28. Whiteland J, *et al.* 1995. *J. Histochem. Cytochem.* 43:313. (IHC)
29. Weber GF, *et al.* 2014. *J Exp Med.* 211:1243. [PubMed](#)
30. Ashok A, *et al.* 2015. *Toxicol Sci.* 143:64. [PubMed](#)
31. Price PJ, *et al.* 2015. *J Immunol.* 194:1164. [PubMed](#)
32. Doni A, *et al.* 2015. *J Exp Med.* 212:905. [PubMed](#)
33. Ferreira R, *et al.* 2016. *J Infect Dis.* 213: 669 - 673. [PubMed](#)
34. Peterson VM, *et al.* 2017. *Nat. Biotechnol.* 35:936. (PG)
35. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci U S A.* 117:33455-65. (SB) [PubMed](#)
36. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

Product Citations

1. Heindl S, *et al.* 2021. *J Exp Med.* 218:. [PubMed](#)
2. Zamarin D, *et al.* 2017. *Nat Commun.* 8:14340. [PubMed](#)
3. Mason HD, *et al.* 2021. *JCI Insight.* 6:e149229. [PubMed](#)
4. Park JA, *et al.* 2021. *J Hematol Oncol.* 14:142. [PubMed](#)
5. Reyes RM, *et al.* 2021. *Oncoimmunology.* 10:2006529. [PubMed](#)
6. Aldrich AL, *et al.* 2021. *The Journal of Immunology.* 206(4):751-765. [PubMed](#)
7. Noah AC, *et al.* 2020. *J Appl Physiol* (1985). 473:128. [PubMed](#)
8. Mulder K, *et al.* 2021. *Immunity.* 54(8):1883-1900.e5. [PubMed](#)
9. Gilbert NM, *et al.* 2021. *Biol Open.* 10:. [PubMed](#)
10. Olson GS, *et al.* 2021. *Cell Reports.* 35(9):109195. [PubMed](#)
11. Cunha LD *et al.* 2018. *Cell.* 175(2):429-441. [PubMed](#)
12. Hobbs BE, *et al.* 2021. *Pathogens.* 10:. [PubMed](#)
13. E O'Koren, R Mathew, D Saban 2016. *Sci Rep.* 6:20636. [PubMed](#)
14. Kusnadi A, *et al.* 2020. *Immunity.* 51(2):241-257. [PubMed](#)
15. Chirivi RGS, *et al.* 2020. *Cell Mol Immunol.* . [PubMed](#)

RRID

AB_10896949 (BioLegend Cat. No. 101233)

Antigen Details

Structure	Integrin family, associates with integrin β ₂ (CD18), 170 kD
Distribution	Granulocytes, monocytes/macrophages, dendritic cells, NK cells, subsets of T and B cells
Function	Adhesion, chemotaxis
Ligand/Receptor	ICAM-1 (CD54), ICAM-2 (CD102), ICAM-4 (CD242), iC3b, fibrinogen
Cell Type	B cells, Dendritic cells, Granulocytes, Macrophages, Monocytes, 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. Barclay A, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Springer TA. 1994. *Cell* 76:301.
3. Coxon A, *et al.* 1996. *Immunity* 5:653.

Gene ID [16409](#)
[3684](#)

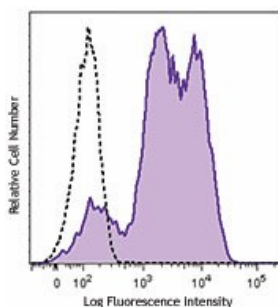
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-mouse/human CD11b, Biotin anti-mouse/human CD11b, FITC anti-mouse/human CD11b, PE anti-mouse/human CD11b, PE/Cyanine5 anti-mouse/human CD11b, Purified anti-mouse/human CD11b, PE/Cyanine7 anti-mouse/human CD11b, Alexa Fluor® 488 anti-mouse/human CD11b, Alexa Fluor® 647 anti-mouse/human CD11b, Alexa Fluor® 700 anti-mouse/human CD11b, Pacific Blue™ anti-mouse/human CD11b, APC/Cyanine7 anti-mouse/human CD11b, PerCP/Cyanine5.5 anti-mouse/human CD11b, PerCP anti-mouse/human CD11b, Brilliant Violet 421™ anti-mouse/human CD11b, Brilliant Violet 570™ anti-mouse/human CD11b, Brilliant Violet 605™ anti-mouse/human CD11b, Brilliant Violet 650™ anti-mouse/human CD11b, Brilliant Violet 711™ anti-mouse/human CD11b, Brilliant Violet 785™ anti-mouse/human CD11b, Brilliant Violet 510™ anti-mouse/human CD11b, Ultra-LEAF™ Purified anti-mouse/human CD11b, Purified anti-mouse/human CD11b (Maxpar® Ready), Alexa Fluor® 594 anti-mouse/human CD11b, PE/Dazzle™ 594 anti-mouse/human CD11b, APC/Fire™ 750 anti-mouse/human CD11b, TotalSeq™-A0014 anti-mouse/human CD11b, Brilliant Violet 750™ anti-mouse/human CD11b, TotalSeq™-B0014 anti-mouse/human CD11b, TotalSeq™-C0014 anti-mouse/human CD11b, Spark NIR™ 685 anti-mouse/human CD11b, PE/Fire™ 640 anti-mouse/human CD11b, Spark YG™ 593 anti-mouse/human CD11b, Spark YG™ 570 anti-mouse/human CD11b, PE/Fire™ 810 anti-mouse/human CD11b, APC/Fire™ 810 anti-mouse/human CD11b Antibody, Spark Blue™ 550 anti-mouse/human CD11b, Spark UV™ 387 anti-mouse/human CD11b

Product Data



C57BL/6 mouse bone marrow cells were stained with CD11b (clone M1/70) Brilliant Violet 570™ (filled histogram) or rat IgG2b, κ Brilliant Violet 570™ isotype control (open histogram). Data shown was gated on myeloid cell population.

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8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587