

## Alexa Fluor® 594 anti-mouse/human CD11b Antibody

<b>Catalog# / Size</b>	101254 / 100 µg
<b>Clone</b>	M1/70
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	αM integrin, Mac-1, Mo1, CR3, Ly-40, C3biR, ITGAM
<b>Isotype</b>	Rat IgG2b, κ
<b>Description</b>	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

---

<b>Verified Reactivity</b>	Mouse, Human, Cynomolgus, Rhesus
<b>Reported Reactivity</b>	Chimpanzee, Baboon, Rabbit
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	C57BL/10 splenocytes
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 594 under optimal conditions.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">IHC-F - Quality tested</a> <a href="#">FC - Verified</a>
<b>Recommended Usage</b>	<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 flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per million cells in 100 µL volume. 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><a href="#">View full statement regarding label licenses</a></p>
<b>Application Notes</b>	<p>Clone M1/70 has been verified for immunocytochemistry (ICC) and frozen immunohistochemistry (IHC-F).</p> <p>Additional reported applications (for relevant formats of this clone) include: immunoprecipitation<sup>1,4</sup>, <i>in vitro</i> blocking<sup>3,9,12</sup>, depletion<sup>2,8</sup>, immunofluorescence microscopy<sup>6,7,10</sup>, immunohistochemistry of acetone-fixed frozen sections<sup>5,11-13</sup>, and spatial biology (IBEX)<sup>35,36</sup>. For <i>in vivo</i> studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Endotoxin &lt; 0.01 EU/µg, Azide-Free, 0.2 µm filtered) (Cat. No. 101248).</p>
<b>Application References</b>	<ol style="list-style-type: none"> <li>Springer T, <i>et al.</i> 1978. <i>Eur. J. Immunol.</i> 8:539. (IP)</li> <li>Ault K and Springer T. 1981. <i>J. Immunol.</i> 126:359. (Deplete)</li> </ol>
<b>(PubMed link indicates</b>	

**BioLegend citation)**

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. Wong Fok Lung T, *et al.* 2020. *Nat Microbiol.* 141:5. [PubMed](#)
2. Bradford BM, *et al.* 2018. *Parasite Immunol.* 40:e12566. [PubMed](#)
3. Gaiser MR, *et al.* 2018. *Oncoimmunology.* 7:e1426517. [PubMed](#)
4. Lee CB, *et al.* 2020. *Oxid Med Cell Longev.* 2020:2946820. [PubMed](#)
5. Patel S, *et al.* 2019. *Biosci Rep.* 39:5. [PubMed](#)
6. Tomlinson KL, *et al.* 2021. *Nat Commun.* 12:1399. [PubMed](#)
7. Ferreira R, *et al.* 2016. *J Infect Dis.* 213: 669 - 673. [PubMed](#)
8. Riquelme SA, *et al.* 2020. *Cell Metabolism.* 31(6):1091-1106.e6. [PubMed](#)
9. Acker KP, *et al.* 2019. *iScience.* 19:281. [PubMed](#)
10. Han P, *et al.* 2020. *Sci Adv.* 6:eaaz1580. [PubMed](#)
11. Mitsui K, *et al.* 2022. *Transl Neurosci.* 13:246. [PubMed](#)
12. Kong IY, *et al.* 2020. *Cell Rep.* 33:108290. [PubMed](#)
13. Baba T, *et al.* 2020. *eLife.* 9:e54257. [PubMed](#)
14. Li H, *et al.* 2021. *J Clin Invest.* 131: [PubMed](#)
15. Pastor Arroyo EM, *et al.* 2022. *Clin Sci (Lond).* 136:557. [PubMed](#)

**RRID**

AB\_2563231 (BioLegend Cat. No. 101254)

**Antigen Details**

<b>Structure</b>	Integrin family, associates with integrin $\beta_2$ (CD18), 170 kD
<b>Distribution</b>	Granulocytes, monocytes/macrophages, dendritic cells, NK cells, subsets of T and B cells
<b>Function</b>	Adhesion, chemotaxis
<b>Ligand/Receptor</b>	ICAM-1 (CD54), ICAM-2 (CD102), ICAM-4 (CD242), iC3b, fibrinogen
<b>Cell Type</b>	B cells, Dendritic cells, Granulocytes, Macrophages, Monocytes, Neutrophils, NK cells, T cells, Tregs
<b>Biology Area</b>	Cell Adhesion, Cell Biology, Costimulatory Molecules, Immunology, Innate Immunity, Neuroscience, Neuroscience Cell Markers
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Barclay A, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press.</li> <li>2. Springer TA. 1994. <i>Cell</i> 76:301.</li> <li>3. Coxon A, <i>et al.</i> 1996. <i>Immunity</i> 5:653.</li> </ol>

Gene ID [16409](#)

[3684](#)

## Related Protocols

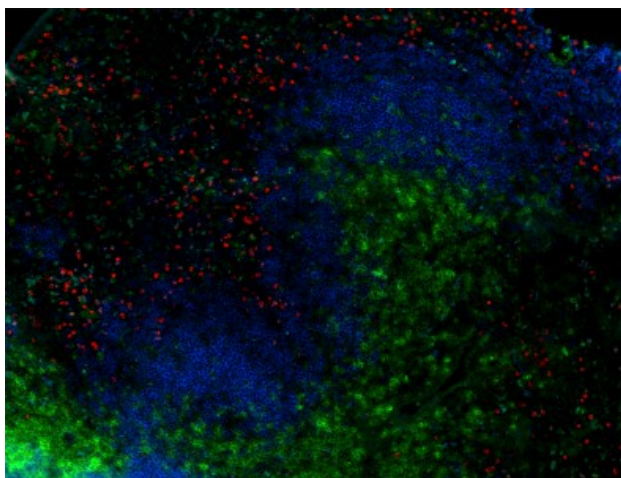
[Immunohistochemistry Protocol for Frozen Sections](#)

[Immunocytochemistry Staining Protocol](#)

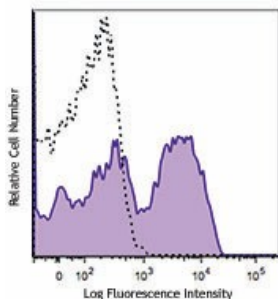
## Other Formats

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 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 CD11b (clone M1/70) 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.



C57BL/6 mouse bone marrow cells were stained with CD11b (clone M1/70) Alexa Fluor® 594 (filled histogram). The data was acquired by BD LSRFortessa™ cell analyzer equipped with Yellow-Green Laser (561 nm) and gated on total bone marrow cell population.

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

\*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, [www.biolegend.com/ordering#license](http://www.biolegend.com/ordering#license)). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally

similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

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