

## Ultra-LEAF™ Purified anti-mouse/human CD11b Antibody

|                          |  |
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| <b>Catalog# / Size</b>   | 101247 / 100 µg<br>101248 / 1 mg<br>101269 / 5 mg<br>101270 / 25 mg<br>101271 / 50 mg<br>101272 / 100 mg   |
| <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

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| <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>            | 0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.01 EU/µg of the protein (<0.001 ng/µg of the protein) as determined by the LAL test.  |
| <b>Preparation</b>            | The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.   |
| <b>Concentration</b>          | The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. To obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.  |
| <b>Storage &amp; Handling</b> | The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.  |
| <b>Application</b>            | <a href="#">FC - Quality tested</a><br><a href="#">CyTOF® - Verified</a><br><a href="#">IP, Block, Depletion, IHC-F, ICC - Reported in the literature, not verified in house</a>  |
| <b>Recommended Usage</b>      | Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.   |
| <b>Application Notes</b>      | Clone M1/70 has been verified for immunocytochemistry (ICC) and frozen immunohistochemistry (IHC-F).<br><br>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 < 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. Oliver 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. McCoy C, *et al.* 2017. *PLoS Negl Trop Dis.* 10.1371/journal.pntd.0005279. [PubMed](#)
2. Rajagopalan A, *et al.* 2021. *Cell Rep Methods.* 1:. [PubMed](#)
3. Bae SH, *et al.* 2021. *Theranostics.* 11:2522. [PubMed](#)
4. Morrissey MA, *et al.* 2020. *Immunity.* 53(2):290-302.e6. [PubMed](#)
5. Hassel C, *et al.* 2021. *Front Immunol.* 12:754661. [PubMed](#)

**RRID**

AB\_2813917 (BioLegend Cat. No. 101247)  
AB\_2561479 (BioLegend Cat. No. 101248)  
AB\_2813918 (BioLegend Cat. No. 101269)  
AB\_2813919 (BioLegend Cat. No. 101270)  
AB\_2813920 (BioLegend Cat. No. 101271)  
AB\_2813921 (BioLegend Cat. No. 101272)

**Antigen Details**

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|---------------------------|---|
| <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> | 1. Barclay A, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press.<br>2. Springer TA. 1994. <i>Cell</i> 76:301.<br>3. Coxon A, <i>et al.</i> 1996. <i>Immunity</i> 5:653. |
| <b>Gene ID</b>            | <a href="#">16409</a><br><a href="#">3684</a>   |

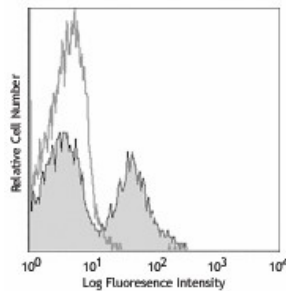
## Related Protocols

[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 Ultra-LEAF™ purified CD11b (clone M1/70) (filled histogram) or rat IgG2b, κ isotype control (open histogram), followed by anti-rat IgG FITC (gated on total cells).

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