

Anti-Mouse CD11b Antibody, Clone M1/70, FITC



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Antibodies

Rat monoclonal IgG2b antibody
against human, mouse, rhesus CD11b,
FITC-conjugated

Catalog #60001FI	500 µg	0.5 mg/mL
#100-0437	100 µg	0.5 mg/mL
#100-0436	25 µg	0.5 mg/mL

Product Description

The M1/70 antibody reacts with CD11b, an ~170 kDa type 1 transmembrane glycoprotein which associates non-covalently with CD18 to form the heterodimeric Mac-1 receptor. Through its interactions with ligands such as ICAM-1 (CD54), ICAM-2 (CD102), ICAM-4 (CD242), iC3b, and fibrinogen, Mac-1 functions in several processes, including the adherence of neutrophils and monocytes to stimulated endothelium and phagocytosis of complement-coated particles. CD11b is expressed on the surface of granulocytes, monocytes, NK cells, dendritic cells, tissue macrophages, and subsets of T and B cells, and has been used as a marker to distinguish naïve and memory CD8+ T cells. CD11b is a relatively late marker for myeloid differentiation and is undetectable on most myelomonocytic hematopoietic progenitor cells and more primitive cells. The M1/70 antibody reportedly blocks iC3b binding to Mac-1.

Target Antigen Name:	CD11b
Alternative Names:	alphaM integrin, C3biR, CR3, Ly-40, Mac-1, Mo1
Gene ID:	16409
Species Reactivity:	Human, Mouse, Rhesus, Cynomolgus, Baboon, Chimpanzee, Rabbit
Host Species:	Rat
Clonality:	Monoclonal
Clone:	M1/70
Isotype:	IgG2b, kappa
Immunogen:	C57BL/10 mouse splenocytes
Conjugate:	FITC (Fluorescein isothiocyanate)

Applications

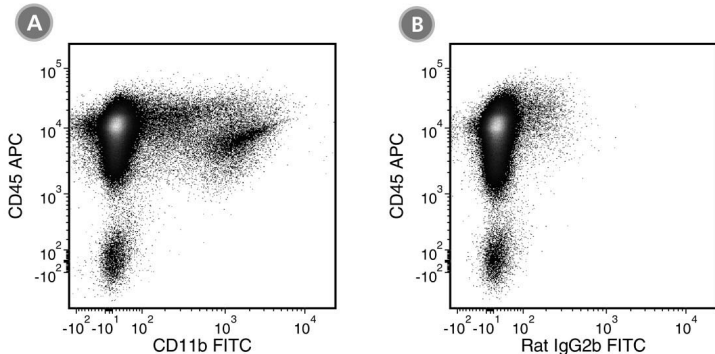
Verified:	FC
Reported:	FACS, FC, IF, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse Monocyte Isolation Kit (Catalog #19861).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide and 0.1% gelatin
Purification:	The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions. The solution is free of unconjugated FITC.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 0.5 µg per 1 × 10 ⁶ cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Anti-Mouse CD11b Antibody, Clone M1/70, FITC and Anti-Mouse CD45 Antibody, Clone 30-F11, APC (Catalog #60030AZ).

(B) Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Rat IgG2b, kappa Isotype Control Antibody, Clone RTK4530, FITC (Catalog #60077FI) and Anti-Mouse CD45 Antibody, Clone 30-F11, APC.

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Markman JL et al. (2020) Loss of testosterone impairs anti-tumor neutrophil function. *Nat Commun* 11(1): 1–15. (FC)
2. Kotov JA & Jenkins MK. (2019) Cutting edge: T cell-dependent plasmablasts form in the absence of single differentiated CD4+ T cell subsets. *J Immunol* 202(2): 401–5. (FC)
3. Hill DA et al. (2018) Distinct macrophage populations direct inflammatory versus physiological changes in adipose tissue. *Proc Natl Acad Sci USA* 115(22): E5096–105. (FC, IF, IHC)
4. Khoramian Tusi B & Socolovsky M. (2018) High-throughput single-cell fate potential assay of murine hematopoietic progenitors in vitro. *Exp Hematol* 60: 21–9.e3. (FC)
5. Lai JD et al. (2018) Early cellular interactions and immune transcriptome profiles in human factor VIII-exposed hemophilia A mice. *J Thromb Haemost* 16(3): 533–45. (FC, IF, IHC)
6. Beura LK et al. (2016) Normalizing the environment recapitulates adult human immune traits in laboratory mice. *Nature* 532(7600): 512–6. (FC, IF, IHC)
7. Rider P et al. (2011) IL-1 α and IL-1 β recruit different myeloid cells and promote different stages of sterile inflammation. *J Immunol* 187(9): 4835–43. (FC, IF)
8. Ahn G-O et al. (2010) Inhibition of Mac-1 (CD11b/CD18) enhances tumor response to radiation by reducing myeloid cell recruitment. *Proc Natl Acad Sci USA* 107(18): 8363–8. (FA, ICC, IF, IHC)
9. Baumgartner CK et al. (2010) Peptide-MHC class II complex stability governs CD4 T cell clonal selection. *J Immunol* 184(2): 573–81. (FACS, FC)
10. Charles N et al. (2010) Basophils and the T helper 2 environment can promote the development of lupus nephritis. *Nat Med* 16(6): 701–7. (FC)
11. Norian LA et al. (2009) Tumor-infiltrating regulatory dendritic cells inhibit CD8+ T cell function via L-arginine metabolism. *Cancer Res* 69(7): 3086–94. (FC)
12. Dzhagalov I et al. (2007) The antiapoptotic protein Mcl-1 is essential for the survival of neutrophils but not macrophages. *Blood* 109(4): 1620–6. (FC)
13. Tailleux L et al. (2003) DC-SIGN is the major Mycobacterium tuberculosis receptor on human dendritic cells. *J Exp Med* 197(1): 121–7. (FA, FC)
14. Iwasaki A & Kelsall BL. (2001) Unique functions of CD11b+, CD8 alpha+, and double-negative Peyer's patch dendritic cells. *J Immunol* 166(8): 4884–90. (FACS, FC, IF, IHC)
15. Noel GJ et al. (1990) Role of complement in mouse macrophage binding of Haemophilus influenzae type b. *J Clin Invest* 85(1): 208–18. (FA)
16. Sanchez-Madrid F et al. (1983) Mapping of antigenic and functional epitopes on the alpha- and beta-subunits of two related mouse glycoproteins involved in cell interactions, LFA-1 and Mac-1. *J Exp Med* 158(2): 586–602. (IP)
17. Beller DI et al. (1982) Anti-Mac-1 selectively inhibits the mouse and human type three complement receptor. *J Exp Med* 156(4): 1000–9. (FA)
18. Ault KA & Springer TA. (1981) Cross-reaction of a rat-anti-mouse phagocyte-specific monoclonal antibody (anti-Mac-1) with human monocytes and natural killer cells. *J Immunol* 126(1): 359–64. (FA, FACS, FC, RIA)
19. Springer T et al. (1979) Mac-1: a macrophage differentiation antigen identified by monoclonal antibody. *Eur J Immunol* 9(4): 301–6.
20. Springer T et al. (1978) Monoclonal xenogeneic antibodies to murine cell surface antigens: identification of novel leukocyte differentiation antigens. *Eur J Immunol* 8(8): 539–51. (IP)

PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2020 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, Scientists Helping Scientists, and EasySep are trademarks of STEMCELL Technologies Canada Inc. CyTOF is a registered trademark of Fluidigm Corporation. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.