Anti-Mouse CD11b Antibody, Clone M1/70

Antibodies

Rat monoclonal IgG2b antibody against human, mouse, rhesus CD11b,

unconjugated

Catalog #60001 500 μg 0.5 mg/mL



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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

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 M1/70

Isotype: IgG2b, kappa

Immunogen: C57BL/10 mouse splenocytes

Conjugate: Unconjugated

Applications

Verified: FC

Reported: CyTOF®, FA, FACS, FC, ICC, IF, IHC, IP, RIA

Special Applications: This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including

EasySep™ Mouse Monocyte Enrichment Kit (Catalog #19761).

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

Properties

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide

Purification: The antibody was purified by affinity chromatography.

Stability and Storage: Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact

techsupport@stemcell.com.

Directions for Use: For flow cytometry the suggested use of this antibody is ≤ 0.25 µg per 1 x 10⁶ cells in 100 µL volume. It is

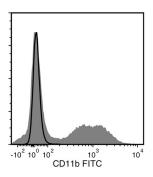
recommended that the antibody be titrated for optimal performance for each application.

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Data



Flow cytometry analysis of C57BL/6 mouse bone marrow cells labeled with Anti-Mouse CD11b Antibody, Clone M1/70, followed by a mouse anti-rat IgG2b antibody, FITC (filled histogram), or a rat IgG2b, kappa isotype control antibody followed by a mouse anti-rat IgG2b antibody, FITC (solid line histogram).

Related Products

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

References

- 1. Ahn G-O et al. (2010) Inhibition of Mac-1 (CD11b/CD18) enhances tumor response to radiation by reducing myeloid cell recruitment. Proceedings of the National Academy of Sciences of the United States of America 107(18): 8363–8. (FA, ICC, IF, IHC)
- 2. Baumgartner CK et al. (2010) Peptide-MHC class II complex stability governs CD4 T cell clonal selection. Journal of immunology (Baltimore, Md : 1950) 184(2): 573–81. (FACS, FA)
- 3. Charles N et al. (2010) Basophils and the T helper 2 environment can promote the development of lupus nephritis. Nature medicine 16(6): 701-7. (FC)
- 4. Norian LA et al. (2009) Tumor-infiltrating regulatory dendritic cells inhibit CD8+ T cell function via L-arginine metabolism. Cancer research 69(7): 3086–94. (FC)
- 5. Dzhagalov I et al. (2007) The antiapoptotic protein McI-1 is essential for the survival of neutrophils but not macrophages. Blood 109(4): 1620–6. (FC)
- 6. Tailleux L et al. (2003) DC-SIGN is the major Mycobacterium tuberculosis receptor on human dendritic cells. The Journal of experimental medicine 197(1): 121–7. (FA, FC)
- 7. Iwasaki A & Kelsall BL. (2001) Unique functions of CD11b+, CD8 alpha+, and double-negative Peyer's patch dendritic cells. Journal of immunology (Baltimore, Md: 1950) 166(8): 4884–90. (FACS, FC, IF, IHC)
- 8. Noel GJ et al. (1990) Role of complement in mouse macrophage binding of Haemophilus influenzae type b. The Journal of clinical investigation 85(1): 208–18. (FA)
- 9. 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. The Journal of experimental medicine 158(2): 586–602. (IP)
- 10. Beller DI et al. (1982) Anti-Mac-1 selectively inhibits the mouse and human type three complement receptor. The Journal of experimental medicine 156(4): 1000–9. (FA)
- 11. 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. Journal of immunology (Baltimore, Md: 1950) 126(1): 359–64. (FA, FACS, RC, RIA)
- 12. Springer T et al. (1979) Mac-1: a macrophage differentiation antigen identified by monoclonal antibody. European journal of immunology 9(4): 301-6.
- 13. Springer T et al. (1978) Monoclonal xenogeneic antibodies to murine cell surface antigens: identification of novel leukocyte differentiation antigens. European journal of immunology 8(8): 539–51. (IP)

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