Anti-Mouse CD11b Antibody, Clone M1/70, PerCP-Cy5.5

Antibodies

Rat monoclonal IgG2b antibody against human, mouse, rhesus CD11b, PerCP-Cy5.5-conjugated

Catalog #60001PS	100 µg	0.2 mg/mL
#60001PS.1	25 µg	0.2 mg/mL

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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:	PerCP-Cy5.5 (Peridinin chlorophyll protein complex-Cyanine5.5)

Applications

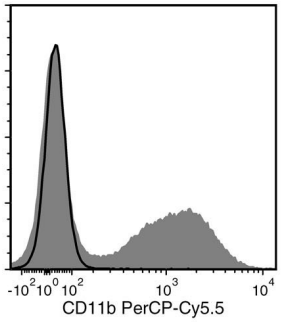
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse Monocyte Isolation Kit (Catalog #19861).

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 PerCP-Cy5.5 under optimal conditions. The solution is free of unconjugated PerCP-Cy5.5.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. 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 10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of C57BL/6 mouse bone marrow cells labeled with Anti-Mouse CD11b Antibody, Clone M1/70, PerCP-Cy5.5 (filled histogram) or a rat IgG2b, kappa isotype control antibody, PerCP-Cy5.5 (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. Ulvmar MH et al. (2016) Pdgfrb-Cre targets lymphatic endothelial cells of both venous and non-venous origins. genesis 54(6): 350–8. (FC)
2. Rider P et al. (2011) IL-1α and IL-1β recruit different myeloid cells and promote different stages of sterile inflammation. J Immunol 187(9): 4835–43. (FC, IF)
3. 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)
4. 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)
5. 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)
6. 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)
7. 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)
8. 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)
9. 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)
10. 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)
11. 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)
12. 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)
13. 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)
14. Springer T et al. (1979) Mac-1: a macrophage differentiation antigen identified by monoclonal antibody. Eur J Immunol 9(4): 301–6.
15. 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)