

Technical Data Sheet

FITC Rat Anti-Mouse CD11b

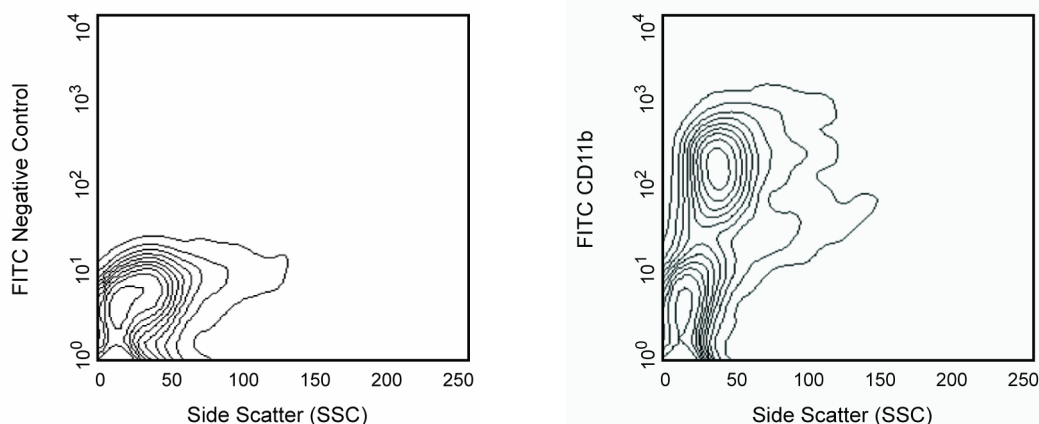
Product Information

Material Number:	553310
Alternate Name:	Integrin α [M] chain, Mac-1 α chain, CR3
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	M1/70
Immunogen:	C57BL/10 splenic T cells and concanavalin A-activated C57BL/10 splenocytes
Isotype:	Rat (DA) IgG2b, κ
Reactivity:	QC Testing: Mouse Reported: Human
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The M1/70 antibody reacts with the 170 kDa α [M] chain of Mac-1 (CD11b/CD18, α [M] β 2 integrin), also known as complement receptor 3 (CR3), which mediates adhesion to C3bi and ICAM-1 (CD54). Mac-1 is expressed at varying levels on granulocytes, macrophages, myeloid-derived dendritic cells, natural killer cells, microglia, and B-1 cells. Mac-1 expression is rapidly up-regulated on neutrophils after activation, in the same time period that CD62L (L-selectin) is shed from the cell surface. M1/70 antibody reportedly blocks cell adherence and C3bi binding, but it does not block cell-mediated lysis. Cross-reaction of mAb M1/70 with CD11b on human monocytes, polymorphonuclear leukocytes, and NK cells has been reported.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Expression of CD11b on bone-marrow myeloid cells. BALB/c bone-marrow leukocytes were either unstained (left panel) or stained with FITC-conjugated M1/70 monoclonal antibody (right panel). Please note that the population of cells having the lowest SSC (erythroid and lymphoid cells) show little expression of CD11b, while cells with moderate-to-high SSC (myeloid cells) are almost uniformly CD11b positive (right panel). Flow cytometry was performed on a BD FACScan™ flow cytometry system.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed.

Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze.

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Application Notes

Application

Flow cytometry	Routinely Tested
Immunofluorescence	Reported

Suggested Companion Products

Catalog Number	Name	Size	Clone
553988	FITC Rat IgG2b, κ Isotype Control	0.25 mg	A95-1

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Ault KA, Springer TA. Cross-reaction of a rat-anti-mouse phagocyte-specific monoclonal antibody (anti-Mac-1) with human monocytes and natural killer cells. *J Immunol.* 1981; 126(1):359-364.(Clone-specific)

Beller DI, Springer TA, Schreiber RD. Anti-Mac-1 selectively inhibits the mouse and human type three complement receptor. *J Exp Med.* 1982; 156(4):1000-1009.(Biology: Blocking)

Driver DJ, McHeyzer-Williams LJ, Cool M, Stetson DB, McHeyzer-Williams MG. Development and maintenance of a B220- memory B cell compartment. *J Immunol.* 2001; 167(3):1393-1405.(Biology: Fluorescence microscopy, Immunofluorescence)

Kaji K, Takeshita S, Miyake K, Takai T, Kudo A. Functional association of CD9 with the Fc gamma receptors in macrophages. *J Immunol.* 2001; 166(5):3256-3265.(Biology: Fluorescence microscopy, Immunofluorescence)

Kishimoto TK, Jutila MA, Berg EL, Butcher EC. Neutrophil Mac-1 and MEL-14 adhesion proteins inversely regulated by chemotactic factors. *Science.* 1989; 245(4923):1238-1241.(Biology)

Lagasse E, Weissman IL. Flow cytometric identification of murine neutrophils and monocytes. *J Immunol Methods.* 1996; 197(1-2):139-150.(Methodology: Flow cytometry)

Lub M, van Kooyk Y, Figdor CG. Competition between lymphocyte function-associated antigen 1 (CD11a/CD18) and Mac-1 (CD11b/CD18) for binding to intercellular adhesion molecule-1 (CD54). *J Leukoc Biol.* 1996; 59(5):648-655.(Biology: Immunoprecipitation)

Sanchez-Madrid F, Simon P, Thompson S, Springer TA. 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.* 1983; 158(2):586-602.(Biology: Blocking, Immunoprecipitation, Western blot)

Springer T, Galfre G, Secher DS, Milstein C. Monoclonal xenogeneic antibodies to murine cell surface antigens: identification of novel leukocyte differentiation antigens. *Eur J Immunol.* 1978; 8(8):539-551.(Immunogen: Immunoprecipitation)

Springer T, Galfre G, Secher DS, Milstein C. Mac-1: a macrophage differentiation antigen identified by monoclonal antibody. *Eur J Immunol.* 1979; 9(4):301-306.(Clone-specific: Immunoprecipitation)

Springer TA, Davignon D, Ho MK, Kurzinger K, Martz E, Sanchez-Madrid F. LFA-1 and Lyt-2,3, molecules associated with T lymphocyte-mediated killing; and Mac-1, an LFA-1 homologue associated with complement receptor function. *Immunol Rev.* 1982; 68:171-195.(Biology: Blocking)