

CD11b Monoclonal Antibody (M1/70.15), PE

Catalog NumberMA1-80486

Product data sheet

Details		Species Reactivity	
Size	100 Tests	Species reactivity	Human, Mouse, Rabbit
Host/Isotope	Rat / IgG2b	Published species	Mouse
Class	Monoclonal	Tested Applications	Dilution *
Type	Antibody	Flow Cytometry (Flow)	Neat-1:10
Clone	M1/70.15	Published Applications	
Immunogen	T cells enriched splenocytes from B10 mice.	Miscellaneous PubMed (Misc)	See 15 publications below
Conjugate	PE	Flow Cytometry (Flow)	See 1 publications below
Form	Lyophilized	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Concentration	Conc. Not Determined		
Purification	Protein G		
Storage buffer	PBS, pH 7.4, with 1% BSA, 5% sucrose		
Contains	0.09% sodium azide		
Storage Conditions	4° C, store in dark, DO NOT FREEZE!		

Product specific information

Reconstitute with 1 mL of distilled water. After reconstitution, store product undiluted at 4°C in the dark. For FACS analysis, use 10 µL of the suggested working dilution to label 1x10⁶ cells in 100 µL. Rat anti Mouse CD11b antibody, clone M1/70.15 recognizes the murine CD11b cell surface antigen also known as the alpha M integrin chain or MAC-1, a differentiation antigen expressed by granulocytes, monocytes, NK cells and tissue macrophages.

Background/Target Information

CD11b (integrin alpha-M, ITGAM, integrin alpha-X, ITGAX) is a 165 kDa adhesion molecule that associates non-covalently with integrin beta-2 (CD18). The CD11b/CD18 heterodimeric complex is also known as integrin alpha-M beta-2, Mac-1, and CR3 (complement receptor 3). CD11b is expressed on the surface of monocytes/macrophages, granulocytes, activated lymphocytes, a subset of NK cells, a subset of dendritic cells, and microglia in the brain. CD11b/CD18 functions as the receptor for ICAM-1 (CD54), ICAM-2 (CD102), ICAM-4 (CD242), CD14, CD50, CD23, heparin, iC3b, fibrinogen, and Factor X -these adhesions are critical for cell-cell and cell-matrix interactions. CD11b is expressed on 8% of spleen cells, 44% of bone marrow cells, and less than 1% of thymocytes, and is commonly used as a microglial marker in nervous tissue. The expression of CD11b increases during monocyte maturation and expression levels vary on tissue macrophages. Further, peritoneal macrophages are reported to express higher levels of CD11b than splenic macrophages. Diseases associated with CD11b dysfunction include systemic lupus erythematosus 6 and ITGAM-related susceptibility to systemic lupus erythematosus.

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PubMed References For CD11b Monoclonal Antibody (M1/70.15), PE

15 Miscellaneous PubMed References

Species / Dilution	Summary
	MA1-80486 was used in flow cytometry to characterize skeletal muscle hematopoietic progenitors.
Mouse / Not Cited	Blood (2001; 98: 2008) "Bone marrow origin of hematopoietic progenitors and stem cells in murine muscle." Author(s):Kawada H,Ogawa M PubMed Article URL: http://dx.doi.org/10.1182/blood.v98.7.2008
Mouse / Not Cited	MA1-80486 was used in flow cytometry to examine the role of gamma interferon in a Chlamydia pneumoniae mouse model.
Mouse / Not Cited	Infection and immunity (2000; 68: 960) "Acquired immunity to Chlamydia pneumoniae is dependent on gamma interferon in two mouse strains that initially differ in this respect after primary challenge." Author(s):Vuola JM,Puurula V,Anttila M,Mäkelä PH,Rautonen N PubMed Article URL: http://dx.doi.org/10.1128/IAI.68.2.960-964.2000
Mouse / Not Cited	MA1-80486 was used in flow cytometry to investigate the role of NKT cells in the development of tolerance.
Mouse / Not Cited	The Journal of experimental medicine (1999; 190: 1215) "CD1-reactive natural killer T cells are required for development of systemic tolerance through an immune-privileged site." Author(s):Sonoda KH,Exley M,Snapper S,Balk SP,Stein-Streilein J PubMed Article URL: http://dx.doi.org/10.1084/jem.190.9.1215
Mouse / Not Cited	MA1-80486 was used in flow cytometry to test if hematopoietic stem cells are capable of reconstituting mesangial cells.
Mouse / Not Cited	Blood (2003; 101: 2215) "Hematopoietic origin of glomerular mesangial cells." Author(s):Masuya M,Drake CJ,Fleming PA,Reilly CM,Zeng H,Hill WD,Martin-Studdard A,Hess DC,Ogawa M PubMed Article URL: http://dx.doi.org/10.1182/blood-2002-04-1076
Mouse / Not Cited	MA1-80486 was used in flow cytometry to test if the survival of a cornea graft is dependent on CD1d-reactive NKT cells.
Mouse / Not Cited	Journal of immunology (Baltimore, Md. : 1950) (2002; 168: 2028) "Long-term survival of corneal allografts is dependent on intact CD1d-reactive NKT cells." Author(s):Sonoda KH,Taniguchi M,Stein-Streilein J PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.168.4.2028
Mouse / Not Cited	MA1-80486 was used in flow cytometry to assess the contribution of DC function in non-obese diabetic mice.
Mouse / Not Cited	Clinical and experimental immunology (2003; 134: 388) "Passive transfer of flt-3L-derived dendritic cells delays diabetes development in NOD mice and associates with early production of interleukin (IL)-4 and IL-10 in the spleen of recipient mice." Author(s):Morin J,Faideau B,Gagnerault MC,Lepault F,Boitard C,Boudaly S PubMed Article URL: http://dx.doi.org/10.1111/j.1365-2249.2003.02308.x
Mouse / Not Cited	MA1-80486 was used in flow cytometry to report that TAN1 is an oncoprotein.
Mouse / Not Cited	The Journal of experimental medicine (1996; 183: 2283) "Exclusive development of T cell neoplasms in mice transplanted with bone marrow expressing activated Notch alleles." Author(s):Pear WS,Aster JC,Scott ML,Hasserjian RP,Soffer B,Sklar J,Baltimore D PubMed Article URL: http://dx.doi.org/10.1084/jem.183.5.2283
Mouse / Not Cited	MA1-80486 was used in flow cytometry to investigate IL-12p40-dependent but IL-12p75-independent immune responses in mice infected with Salmonella enteritidis.
Mouse / Not Cited	Journal of immunology (Baltimore, Md. : 1950) (2001; 167: 5304) "IL-12p40-dependent agonistic effects on the development of protective innate and adaptive immunity against Salmonella enteritidis." Author(s):Lehmann J,Bellmann S,Werner C,Schröder R,Schütze N,Alber G PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.167.9.5304
Mouse / Not Cited	MA1-80486 was used in flow cytometry to determine the phenotype and function of T cells that prevent diabetes.
Mouse / Not Cited	Journal of immunology (Baltimore, Md. : 1950) (2000; 164: 240) "Characterization of peripheral regulatory CD4+ T cells that prevent diabetes onset in nonobese diabetic mice." Author(s):Lepault F,Gagnerault MC PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.164.1.240

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	MA1-80486 was used in flow cytometry to use the BALB-neuT model to study carcinogenesis.
Mouse / Not Cited	<p>Blood (2003; 102: 2138)</p> <p>"Myeloid cell expansion elicited by the progression of spontaneous mammary carcinomas in c-erbB-2 transgenic BALB/c mice suppresses immune reactivity."</p> <p>Author(s):Melani C,Chiodoni C,Forni G,Colombo MP</p> <p>PubMed Article URL:http://dx.doi.org/10.1182/blood-2003-01-0190</p>
	MA1-80486 was used in flow cytometry to examine the impact of TNF on rheumatoid arthritis.
Mouse / Not Cited	<p>The Journal of clinical investigation (2001; 107: 1519)</p> <p>"Severe inflammatory arthritis and lymphadenopathy in the absence of TNF."</p> <p>Author(s):Campbell IK,O'Donnell K,Lawlor KE,Wicks IP</p> <p>PubMed Article URL:http://dx.doi.org/10.1172/JCI12724</p>
	MA1-80486 was used in flow cytometry to study FasL expression on thyrocytes.
Mouse / Not Cited	<p>Journal of immunology (Baltimore, Md. : 1950) (1999; 162: 603)</p> <p>"Gene therapy of experimental autoimmune thyroiditis by in vivo administration of plasmid DNA coding for Fas ligand."</p> <p>Author(s):Batteux F,Tourneur L,Trebeden H,Charreire J,Chiocchia G</p> <p>PubMed Article URL:http://www.ncbi.nlm.nih.gov/pubmed/9886438</p>
	MA1-80486 was used in flow cytometry to identify a rare population of cells in the adult mouse bone marrow that generates CD4(+) and CD8(+) TCRalphabeta(+) T cells.
Mouse / Not Cited	<p>Proceedings of the National Academy of Sciences of the United States of America (1999; 96: 14493)</p> <p>"Identification of an early T cell progenitor for a pathway of T cell maturation in the bone marrow."</p> <p>Author(s):Dejbakhsh-Jones S,Strober S</p> <p>PubMed Article URL:http://dx.doi.org/10.1073/pnas.96.25.14493</p>
	MA1-80486 was used in flow cytometry to assess the expression of the T1 surface antigen in murine hemopoietic organs.
Mouse / Not Cited	<p>Journal of immunology (Baltimore, Md. : 1950) (1998; 161: 4866)</p> <p>"The IL-1 receptor-related T1 antigen is expressed on immature and mature mast cells and on fetal blood mast cell progenitors."</p> <p>Author(s):Moritz DR,Rodewald HR,Gheyselinck J,Klemenz R</p> <p>PubMed Article URL:http://www.ncbi.nlm.nih.gov/pubmed/9794420</p>
	MA1-80486 was used in flow cytometry to investigate the role of VCAM-1 in collagen-induced arthritis.
Mouse / Not Cited	<p>Clinical and experimental immunology (2002; 128: 44)</p> <p>"Vascular cell adhesion molecule-1 (VCAM-1) blockade in collagen-induced arthritis reduces joint involvement and alters B cell trafficking."</p> <p>Author(s):Carter RA,Campbell IK,O'Donnel KL,Wicks IP</p> <p>PubMed Article URL:http://dx.doi.org/10.1046/j.1365-2249.2002.01794.x</p>
1 Flow Cytometry References	
Species / Dilution	Summary
	MA1-80486 was used in flow cytometry to investigate the expression of prolactin receptor in lymphocyte subsets
Mouse / Not Cited	<p>Journal of immunology (Baltimore, Md. : 1950) (1993; 150: 5673)</p> <p>"Expression of prolactin receptors in murine lymphoid cells in normal and autoimmune situations."</p> <p>Author(s):Gagnerault MC,Touraine P,Savino W,Kelly PA,Dardenne M</p> <p>PubMed Article URL:http://www.ncbi.nlm.nih.gov/pubmed/8515082</p>

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