

CD11b Monoclonal Antibody (M1/70.15), Pacific Blue™

Catalog NumberRM2828

Product data sheet

Details		Species Reactivity	
Size	1 mL	Species reactivity	Mouse
Host/Isotope	Rat / IgG2b	Published species	Mouse, Not Applicable
Class	Monoclonal	Tested Applications	Dilution *
Type	Antibody	Flow Cytometry (Flow)	Assay-dependent
Clone	M1/70.15	Published Applications	
Immunogen	C57BL/10 splenic T cells and concanavalin A stimulated C57BL/10 splenocytes	Flow Cytometry (Flow)	See 13 publications below
Conjugate	Pacific Blue™	Immunoprecipitation (IP)	See 1 publications below
Form	Liquid	* 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	0.1 mg/mL		
Purification	purified		
Storage buffer	PBS with BSA		
Contains	0.1% sodium azide		
Storage Conditions	4° C		

Background/Target Information

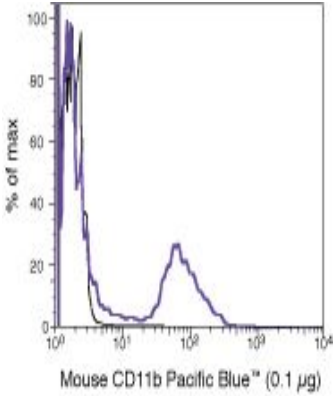
CD11b (integrin alpha-M, ITGAM, integrin alpha-X, ITGAX) is a 165 kDa adhesion molecule that associates non-covalently with integrin beta-2 (CD18). The CD11b/CD18 heterodimeric complex is also known as integrin alpha-M beta-2, Mac-1, and CR3 (complement receptor 3). CD11b is expressed on the surface 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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CD11b Antibody (RM2828) in Flow
Flow Cytometry analysis using a CD11b monoclonal antibody (Product # RM2828).

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PubMed References For CD11b Monoclonal Antibody (M1/70.15), Pacific Blue™

13 Flow Cytometry References

Species / Dilution	Summary
	RM2828 was used in Flow Cytometry, Immunoprecipitation to study the role of beclin 2 on regulation of inflammasome sensors.
Mouse / Not Cited	Autophagy (2022; 18: 340) "BECN2 (beclin 2) Negatively Regulates Inflammasome Sensors Through ATG9A-Dependent but ATG16L1- and LC3-Independent Non-Canonical Autophagy." Author(s):Deng G,Li C,Chen L,Xing C,Fu C,Qian C,Liu X,Wang HY,Zhu M,Wang RF PubMed Article URL: http://dx.doi.org/10.1080/15548627.2021.1934270
Mouse / Not Cited	RM2828 was used in Flow cytometry/Cell sorting to show that GDF15 coordinates tolerance to inflammatory damage through regulation of triglyceride metabolism. Cell (2019; 178: 1231) "GDF15 Is an Inflammation-Induced Central Mediator of Tissue Tolerance." Author(s):Luan HH,Wang A,Hilliard BK,Carvalho F,Rosen CE,Ahasic AM,Herzog EL,Kang I,Pisani MA,Yu S,Zhang C, Ring AM,Young LH,Medzhitov R PubMed Article URL: http://dx.doi.org/10.1016/j.cell.2019.07.033
Mouse / Not Cited	RM2828 was used in Flow cytometry/Cell sorting to study muscle regeneration and tissue-resident muscle stem cell function in whole body Pparg null mice generated by epiblast-specific Cre/lox deletion (Pparg/). International journal of molecular sciences (2018; 19:) "PPAR Controls Ectopic Adipogenesis and Cross-Talks with Myogenesis During Skeletal Muscle Regeneration." Author(s):Dammone G,Karaz S,Lukjanenko L,Winkler C,Sizzano F,Jacot G,Migliavacca E,Palini A,Desvergne B,Gilardi F, Feige JN PubMed Article URL: http://dx.doi.org/10.3390/ijms19072044
Mouse / Not Cited	RM2828 was used in Flow cytometry/Cell sorting to suggest that ICAM-5 plays a critical role in modulating chemokine production in the CNS. Journal of neuroimmunology (2009; 213: 12) "ICAM-5 modulates cytokine/chemokine production in the CNS during the course of herpes simplex virus type 1 infection." Author(s):Tse MC,Lane C,Mott K,Onlamoon N,Hsiao HM,Perng GC PubMed Article URL: http://dx.doi.org/10.1016/j.jneuroim.2009.06.007
Not Applicable / Not Cited	RM2828 was used in flow cytometry to determine which cells are responsible for IFN-beta expression after infection with Listeria monocytogenes PloS one (2011; 6:) "Production of IFN- during Listeria monocytogenes infection is restricted to monocyte/macrophage lineage." Author(s):Solodova E,Jablonska J,Weiss S,Lienenklaus S PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0018543
Mouse / 1:800	RM2828 was used in Flow cytometry/Cell sorting to describe the use of parabiosis to define cell ontogeny in a mouse model of breast cancer. Bio-protocol (2015; 5:) "Determining Leukocyte Origins Using Parabiosis in the PyMT Breast Tumor Model." Author(s):Franklin RA,Li MO PubMed Article URL: http://dx.doi.org/10.21769/bioprotoc.1567
Mouse / Not Cited	RM2828 was used in Flow Cytometry to demonstrate the paracrine immunosuppressive effects for exon-9-mutated C-terminally modified calreticulin. Molecular cell (2020; 77: 748) "Immunosuppression by Mutated Calreticulin Released from Malignant Cells." Author(s):Liu P,Zhao L,Loos F,Marty C,Xie W,Martins I,Lachkar S,Qu B,Waechel-Énée E,Plo I,Vainchenker W,Perez F, Rodriguez D,López-Otin C,van Ender P,Zitvogel L,Kepp O,Kroemer G PubMed Article URL: http://dx.doi.org/10.1016/j.molcel.2019.11.004
Mouse / Not Cited	RM2828 was used in Flow Cytometry to investigate the role of FAPs in disuse atrophy in vivo utilizing a 2-week single hindlimb immobilization model. Frontiers in cell and developmental biology (2022; 9:) "Hindlimb Immobilization Increases IL-1 and Cdkn2a Expression in Skeletal Muscle Fibro-Adipogenic Progenitor Cells: A Link Between Senescence and Muscle Disuse Atrophy." Author(s):Parker E,Khayrullin A,Kent A,Mendhe B,Youssef El Baradie KB,Yu K,Pihkala J,Liu Y,McGee-Lawrence M, Johnson M,Chen J,Hamrick M PubMed Article URL: http://dx.doi.org/10.3389/fcell.2021.790437

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	RM2828 was used in flow cytometry to show that the loss of stem cell adhesion to fibronectin is a mechanism of aging
Mouse / 1:25	<p>Nature medicine (2016; 22: 897)</p> <p>"Loss of fibronectin from the aged stem cell niche affects the regenerative capacity of skeletal muscle in mice."</p> <p>Author(s):Lukjanenko L,Jung MJ,Hegde N,Perruisseau-Carrier C,Migliavacca E,Rozo M,Karaz S,Jacot G,Schmidt M,Li L, Metairon S,Raymond F, Lee U,Sizzano F,Wilson DH,Dumont NA,Palini A,Fässler R,Steiner P,Descombes P,Rudnicki MA, Fan CM,von Maltzahn J,Feige JN,Bentzinger CF</p> <p>PubMed Article URL:http://dx.doi.org/10.1038/nm.4126</p>
	RM2828 was used in Flow Cytometry to conclude that DC-intrinsic JAK1 promotes peripheral tolerance, suggesting potential unwarranted DC-mediated effects of Jakinibs in autoimmune diseases.
Mouse / 1:80	<p>Cell reports (2022; 38:)</p> <p>"JAK1 signaling in dendritic cells promotes peripheral tolerance in autoimmunity through PD-L1-mediated regulatory T cell induction."</p> <p>Author(s):Vogel A,Martin K,Soukup K,Halfmann A,Kerndl M,Brunner JS,Hofmann M,Oberbichler L,Korosec A,Kuttke M, Datler H,Kieler M,Musiejovsky L,Dohnal A,Sharif O,Schabbauer G</p> <p>PubMed Article URL:http://dx.doi.org/10.1016/j.celrep.2022.110420</p>
	RM2828 was used in Flow Cytometry to study the features of glycosylation that are associated with macrophage lineage and polarization in mice.
Mouse / Not Cited	<p>Cell chemical biology (2021; 28: 567)</p> <p>"Resident and elicited murine macrophages differ in expression of their glycomes and glycan-binding proteins."</p> <p>Author(s):Park DD,Chen J,Kudelka MR,Jia N,Haller CA,Kosaraju R,Premji AM,Galizzi M,Nairn AV,Moremen KW, Cummings RD,Chaikof EL</p> <p>PubMed Article URL:http://dx.doi.org/10.1016/j.chembiol.2020.12.005</p>
	RM2828 was used in Flow cytometry/Cell sorting to develop an immunotherapy regimen that enables co-stimulation of TLR7/8- and CD40-mediated pathways.
Mouse / Not Cited	<p>Advanced materials (Deerfield Beach, Fla.) (2022; 34:)</p> <p>"Nanomaterials-Mediated Co-Stimulation of Toll-Like Receptors and CD40 for Antitumor Immunity."</p> <p>Author(s):Yan J,Zhang Y,Du S,Hou X,Li W,Zeng C,Zhang C,Cheng J,Deng B,McComb DW,Zhao W,Xue Y,Kang DD, Cheng X,Dong Y</p> <p>PubMed Article URL:http://dx.doi.org/10.1002/adma.202207486</p>
	RM2828 was used in Flow cytometry/Cell sorting to conclude that TB increased susceptibility in DM results from a delayed innate immune response to the presence of M. tuberculosis-infected alveolar macrophages.
Mouse / Not Cited	<p>Journal of immunology (Baltimore, Md. : 1950) (2010; 184: 6275)</p> <p>"Diabetic mice display a delayed adaptive immune response to Mycobacterium tuberculosis."</p> <p>Author(s):Vallerskog T,Martens GW,Kornfeld H</p> <p>PubMed Article URL:http://dx.doi.org/10.4049/jimmunol.1000304</p>

1 Immunoprecipitation References	
Species / Dilution	Summary
	RM2828 was used in Flow Cytometry, Immunoprecipitation to study the role of beclin 2 on regulation of inflammasome sensors.
Mouse / Not Cited	<p>Autophagy (2022; 18: 340)</p> <p>"BECN2 (beclin 2) Negatively Regulates Inflammasome Sensors Through ATG9A-Dependent but ATG16L1- and LC3-Independent Non-Canonical Autophagy."</p> <p>Author(s):Deng G,Li C,Chen L,Xing C,Fu C,Qian C,Liu X,Wang HY,Zhu M,Wang RF</p> <p>PubMed Article URL:http://dx.doi.org/10.1080/15548627.2021.1934270</p>

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