

Datasheet: MCA1369PE

Description:	HAMSTER ANTI MOUSE CD11c:RPE
Specificity:	CD11c
Other names:	INTEGRIN ALPHA X CHAIN
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	N418
Isotype:	IgG
Quantity:	100 TESTS

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Mouse		
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 1.0 ml distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% sodium azide (NaN ₃)		
Stabilisers	1% bovine serum albumin		
	5% sucrose		

Immunogen	Mouse spleen dendritic cells.
External Database Links	<p>UniProt: Q9QXH4 Related reagents</p> <p>Entrez Gene: 16411 Itgax Related reagents</p>
RRID	AB_324808
Fusion Partners	Spleen cells from immunized Armenian Hamster were fused with cells of the Sp2/0 myeloma cell line.
Specificity	<p>Hamster anti Mouse CD11c antibody, clone N418 recognizes the murine homolog of human CD11c, also known as Integrin Alpha X, a 150/90 kDa member of the beta 2 integrin family. In mice, CD11c is primarily expressed by dendritic cells.</p> <p>Hamster anti Mouse CD11c antibody, clone N418 has been reported to enhance antigen specific responses when used to target dendritic cells <i>in vivo</i> (Wang et al. 2000).</p>
Flow Cytometry	<p>Use 10µl of the suggested working dilution to label 10⁶ cells in 100µl.</p> <p>The Fc region of monoclonal antibodies may bind to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR (BUF041A/BUF041B).</p>
References	<ol style="list-style-type: none"> 1. Crowley, M.T. <i>et al.</i> (1990) Use of the fluorescence activated cell sorter to enrich dendritic cells from mouse spleen. J Immunol Methods. 133 (1): 55-66. 2. Dahlen, E. <i>et al.</i> (1998) Dendritic cells and macrophages are the first and major producers of TNF-alpha in pancreatic islets in the nonobese diabetic mouse. J Immunol. 160: 3585-93. 3. Nunez, R. <i>et al.</i> (1999) Immortalized cell lines derived from mice lacking both type I and type II IFN receptors unify some functions of immature and mature dendritic cells. Immunol Cell Biol. 77: 153-63. 4. Wang, H. <i>et al.</i> (2000) Rapid antibody responses by low-dose, single-step, dendritic cell-targeted immunization. Proc Natl Acad Sci U S A. 97 (2): 847-52. 5. Gonzalez-Juarrero, M. and Orme, I.M. (2001) Characterization of murine lung dendritic cells infected with <i>Mycobacterium tuberculosis</i>. Infect Immun. 69: 1127-33. 6. de Jersey, J. <i>et al.</i> (2002) Activation of CD8 T cells by antigen expressed in the pituitary gland. J Immunol. 169: 6753-9. 7. Hamada, H. <i>et al.</i> (2002) Identification of multiple isolated lymphoid follicles on the antimesenteric wall of the mouse small intestine. J Immunol. 168: 57-64. 8. Mercier, S. <i>et al.</i> (2002) Distinct roles of adenovirus vector-transduced dendritic cells, myoblasts, and endothelial cells in mediating an immune response against a transgene product. J Virol. 76: 2899-911. 9. Dimier-Poisson, I. <i>et al.</i> (2003) Protective mucosal Th2 immune response against <i>Toxoplasma gondii</i> by murine mesenteric lymph node dendritic cells. Infect Immun. 71: 5254-65. 10. Bjorck, P. (2004) Dendritic cells exposed to herpes simplex virus <i>in vivo</i> do not

- produce IFN- α after rechallenge with virus *in vitro* and exhibit decreased T cell alloreactivity. [J Immunol. 172: 5396-404.](#)
11. Beyer, M. *et al.* (2005) The beta2 integrin CD11c distinguishes a subset of cytotoxic pulmonary T cells with potent antiviral effects in vitro and in vivo. [Respir Res. 6: 70.](#)
 12. Linehan, S.A.. (2005) The mannose receptor is expressed by subsets of APC in non-lymphoid organs. [BMC Immunol. 6:4.](#)
 13. Moos, M.P. *et al.* (2005) The lamina adventitia is the major site of immune cell accumulation in standard chow-fed apolipoprotein E-deficient mice [Arterioscler Thromb Vasc Biol. 25: 2386-91.](#)
 14. Ponce, L.V. *et al.* (2005) Adoptive transfer of dendritic cells modulates immunogenesis and tolerogenesis in a neonatal model of murine cutaneous leishmaniasis. [Kinetoplastid Biol Dis. 4: 2.](#)
 15. Meng, Q. *et al.* (2007) Phenotypes, distribution, and morphological features of antigen-presenting cells in the murine cornea following intravitreal injection. [Mol Vis. 13: 475-86.](#)
 16. Goupil, M. *et al.* (2009) Macrophage-mediated responses to *Candida albicans* in mice expressing the human immunodeficiency virus type 1 transgene. [Infect Immun. 77: 4136-49.](#)
 17. Lundqvist, J. *et al.* (2010) Concomitant infection decreases the malaria burden but escalates relapsing fever borreliosis. [Infect Immun. 78 \(5\): 1924-30.](#)
 18. Zhang, L. *et al.* (2011) The inflammatory changes of adipose tissue in late pregnant mice. [J Mol Endocrinol. 47 \(2\): 157-65.](#)
 19. Donaldson, D.S. *et al.* (2012) M cell-depletion blocks oral prion disease pathogenesis. [Mucosal Immunol. 5: 216-25.](#)
 20. Wada, T. *et al.* (2013) Eplerenone ameliorates the phenotypes of metabolic syndrome with NASH in liver-specific SREBP-1c Tg mice fed high-fat and high-fructose diet. [Am J Physiol Endocrinol Metab. 305 \(11\): E1415-25.](#)
 21. Kan, M.J. *et al.* (2015) Arginine deprivation and immune suppression in a mouse model of Alzheimer's disease. [J Neurosci. 35 \(15\): 5969-82.](#)
 22. Kayser, B.D. *et al.* (2015) Perinatal Overnutrition Exacerbates Adipose Tissue Inflammation Caused by High-Fat Feeding in C57BL/6J Mice. [PLoS One. 10 \(3\): e0121954.](#)
 23. Powell, J.J. *et al.* (2015) An endogenous nanomineral chaperones luminal antigen and peptidoglycan to intestinal immune cells. [Nat Nanotechnol. 10 \(4\): 361-9.](#)
 24. Sehgal, A. *et al.* (2017) c-Rel is dispensable for the differentiation and functional maturation of M cells in the follicle-associated epithelium. [Immunobiology. 222 \(2\): 316-26.](#)
 25. Curina, G. *et al.* (2018) Evaluation of immune responses in mice and sheep inoculated with a live attenuated *Brucella melitensis* REV1 vaccine produced in bioreactor. [Vet Immunol Immunopathol. 198: 44-53.](#)
 26. Bender, L.H. *et al.* (2020) Intratumoral Administration of a Novel Cytotoxic Formulation with Strong Tissue Dispersive Properties Regresses Tumor Growth and Elicits Systemic Adaptive Immunity in *In Vivo* Models. [Int J Mol Sci. 21 \(12\): 4493.](#)
 27. Iida, Y. *et al.* (2020) Local injection of CCL19-expressing mesenchymal stem cells augments the therapeutic efficacy of anti-PD-L1 antibody by promoting infiltration of immune cells. [J Immunother Cancer. 8 \(2\): e000582.](#)
 28. Kouwenberg, M. *et al.* (2021) Reduced CXCL1 production by endogenous IL-37 expressing dendritic cells does not affect T cell activation. [PLoS One. 16 \(5\): e0251809.](#)
 29. Mohanta, S.K. *et al.* (2022) Neuroimmune cardiovascular interfaces control

atherosclerosis. [Nature. 605 \(7908\): 152-159.](#)

30. Mihindukulasooriya, P.S. *et al.* (2022) Polyphenol-rich Sargassum horneri alleviates atopic dermatitis-like skin lesions in NC/Nga mice by suppressing Th2-mediated cytokine IL-13 [Algae. 37 \(4\): 331-347.](#)

31. Hirano, R. *et al.* (2023) Tissue-resident macrophages are major tumor-associated macrophage resources, contributing to early TNBC development, recurrence, and metastases [Commun Biol. 6 \(1\): 144.](#)

32. Wang, M.Y. *et al.* (2024) Downregulation of the kidney glucagon receptor, essential for renal function and systemic homeostasis, contributes to chronic kidney disease. [Cell Metab. :S1550-4131\(23\)00475-8.](#)

33. Ni, Y. *et al.* (2022) CX3CL1/CX3CR1 interaction protects against lipotoxicity-induced nonalcoholic steatohepatitis by regulating macrophage migration and M1/M2 status. [Metabolism. 136: 155272.](#)

Storage

This product is shipped at ambient temperature.

Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.

DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #20487 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1369PE>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[HAMSTER \(ARMENIAN\) IgG NEGATIVE CONTROL:RPE \(MCA2356PE\)](#)

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M439926:250523'

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