

Datasheet: MCA1369F

BATCH NUMBER 172140

Description:	HAMSTER ANTI MOUSE CD11c:FITC
Specificity:	CD11c
Other names:	CD11, INTEGRIN ALPHA X CHAIN
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	N418
Isotype:	IgG
Quantity:	0.1 mg

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	▪			1/100

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 Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid						
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>FITC</td> <td>490</td> <td>525</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	FITC	490	525
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
FITC	490	525					
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						
Approx. Protein	IgG concentration 0.1 mg/ml						

Concentrations

Immunogen Mouse spleen dendritic cells.

External Database Links

UniProt:

[Q9QXH4](#) [Related reagents](#)

Entrez Gene:

[16411](#) Itgax [Related reagents](#)

RRID AB_324141

Fusion Partners Spleen cells from immunized Armenian Hamster were fused with cells of the Sp2/0 myeloma cell line.

Specificity **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.

Hamster anti Mouse CD11c antibody, clone N418 has been reported to enhance antigen specific responses when used to target dendritic cells *in vivo* ([Wang et al. 2000](#)).

Flow Cytometry

Use 10 μ l of the suggested working dilution to label 10⁶ cells in 100 μ l. The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR ([BUF041A/BUF041B](#)).

References

1. Crowley, M.T. *et al.* (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. *et al.* (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. *et al.* (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. *et al.* (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 *Mycobacterium tuberculosis*. [Infect Immun. 69: 1127-33.](#)
6. de Jersey, J. *et al.* (2002) Activation of CD8 T cells by antigen expressed in the pituitary gland. [J Immunol. 169: 6753-9.](#)
7. Hamada, H. *et al.* (2002) Identification of multiple isolated lymphoid follicles on the antimesenteric wall of the mouse small intestine. [J Immunol. 168: 57-64.](#)
8. Mercier, S. *et al.* (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. *et al.* (2003) Protective mucosal Th2 immune response against

- Toxoplasma gondii by murine mesenteric lymph node dendritic cells. [Infect Immun. 71: 5254-65.](#)
10. Bjorck, P. (2004) Dendritic cells exposed to herpes simplex virus *in vivo* 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. Mihindikulasooriya, 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. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1369F>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[HAMSTER \(ARMENIAN\) IgG NEGATIVE CONTROL:FITC \(MCA2356F\)](#)

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
'M409416:221019'

Printed on 28 May 2026