

Datasheet: MCA519A700

Description:	RAT ANTI MOUSE MACROPHAGES/MONOCYTES:Alexa Fluor® 700
Specificity:	MACROPHAGES/MONOCYTES
Format:	ALEXA FLUOR® 700
Product Type:	Monoclonal Antibody
Clone:	MOMA-2
Isotype:	IgG2b
Quantity:	100 TESTS/1ml

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)	▪			Neat - 1/10

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

*Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.

(1)Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.

Target Species	Mouse						
Product Form	Purified IgG conjugated to Alexa Fluor® 700 - 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>Alexa Fluor®700</td> <td>702</td> <td>723</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Alexa Fluor®700	702	723
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
Alexa Fluor®700	702	723					
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant						
Buffer Solution	Phosphate buffered saline						
Preservative	0.09% Sodium Azide						
Stabilisers	1% Bovine Serum Albumin						

Approx. Protein Concentrations	IgG concentration 0.05mg/ml
Immunogen	Mouse lymph node stroma.
RRID	AB_931729
Fusion Partners	Spleen cells from immunised Wistar rats were fused with cells of the SP/0 myeloma cell line.
Specificity	Rat anti Mouse Macrophages/Monocytes antibody, clone MOMA-2 recognizes an intracellular antigen of mouse macrophages and monocytes. It reacts strongly with macrophages in lymphoid organs such as tingible body macrophages and macrophages in T cell dependant areas and is extremely useful in immunohistochemistry. Reacts on all mouse strains tested.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.
References	<ol style="list-style-type: none"> 1. van der Sluis, R.J. <i>et al.</i> (2014) Prolactin receptor antagonism uncouples lipids from atherosclerosis susceptibility. J Endocrinol. 222 (3): 341-50. 2. Nakai, Y. <i>et al.</i> (2004) Natural killer T cells accelerate atherogenesis in mice. Blood. 104 (7): 2051-9. 3. Skoura, A. <i>et al.</i> (2011) Sphingosine-1-phosphate receptor-2 function in myeloid cells regulates vascular inflammation and atherosclerosis. Arterioscler Thromb Vasc Biol. 31 (1): 81-5. 4. Madrigal-Matute, J. <i>et al.</i> (2010) Heat shock protein 90 inhibitors attenuate inflammatory responses in atherosclerosis. Cardiovasc Res. 86 (2): 330-7. 5. de Jager, S.C. <i>et al.</i> (2011) Growth differentiation factor 15 deficiency protects against atherosclerosis by attenuating CCR2-mediated macrophage chemotaxis. J Exp Med. 208 (2): 217-25. 6. Frossard, J.L. <i>et al.</i> (2011) Role of CCL-2, CCR-2 and CCR-4 in cerulein-induced acute pancreatitis and pancreatitis-associated lung injury. J Clin Pathol. 64 (5): 387-93. 7. Bhatia, V.K. <i>et al.</i> (2007) Complement C1q reduces early atherosclerosis in low-density lipoprotein receptor-deficient mice. Am J Pathol. 170: 416-26. 8. Bourdillon, M.C. <i>et al.</i> (2006) Reduced atherosclerotic lesion size in P-selectin deficient apolipoprotein E-knockout mice fed a chow but not a fat diet. J Biomed Biotechnol. 2006 (2): 49193. 9. Duewell, P. <i>et al.</i> (2010) NLRP3 inflammasomes are required for atherogenesis and activated by cholesterol crystals. Nature. 464: 1357-61. 10. Weingärtner, O. <i>et al.</i> (2011) Differential effects on inhibition of cholesterol absorption by plant stanol and plant sterol esters in apoE^{-/-} mice. Cardiovasc Res. 90: 484-92. 11. Yamamoto, S. <i>et al.</i> (2011) Oral activated charcoal adsorbent (AST-120) ameliorates extent and instability of atherosclerosis accelerated by kidney disease in apolipoprotein E-deficient mice. Nephrol Dial Transplant. 26 (8): 2491-7. 12. Ng, H.P. <i>et al.</i> (2011) Attenuated atherosclerotic lesions in apoE-Fcy-chain-deficient hyperlipidemic mouse model is associated with inhibition of Th17 cells and promotion of regulatory T cells. J Immunol. 187 (11): 6082-93. 13. Ruf, M.T. <i>et al.</i> (2012) Chemotherapy-Associated Changes of Histopathological

- Features of *Mycobacterium ulcerans* Lesions in a Buruli Ulcer Mouse Model. [Antimicrob Agents Chemother. 56: 687-96.](#)
14. Che, J. *et al.* (2011) Endothelial FGF receptor signaling accelerates atherosclerosis. [Am J Physiol Heart Circ Physiol. 300: H154-61.](#)
 15. Chen, S. (2010) IL-17A is proatherogenic in high-fat diet-induced and *Chlamydia pneumoniae* infection-accelerated atherosclerosis in mice. [J Immunol. 185: 5619-27.](#)
 16. Dieleman, L.A. *et al.* (1998) Chronic experimental colitis induced by dextran sulphate sodium (DSS) is characterized by Th1 and Th2 cytokines. [Clin Exp Immunol. 114: 385-91.](#)
 17. Gao, Q. *et al.* (2010) A critical function of Th17 proinflammatory cells in the development of atherosclerotic plaque in mice. [J Immunol. 185: 5820-7.](#)
 18. Pedersen, T.X. *et al.* (2010) The pro-inflammatory effect of uraemia overrules the anti-atherogenic potential of immunization with oxidized LDL in apoE^{-/-} mice. [Nephrol Dial Transplant. 25: 2486-91.](#)
 19. Lee, M.R. *et al.* (2014) The adipokine Retnla modulates cholesterol homeostasis in hyperlipidemic mice. [Nat Commun. 5: 4410.](#)
 20. Hoeksema, M.A. *et al.* (2014) Targeting macrophage Histone deacetylase 3 stabilizes atherosclerotic lesions. [EMBO Mol Med. 6 \(9\): 1124-32.](#)
 21. Yamamoto, S. *et al.* (2015) Atherosclerosis following renal injury is ameliorated by pioglitazone and losartan via macrophage phenotype [Atherosclerosis. 242 \(1\): 56-64.](#)
 22. Wan W *et al.* (2015) Atypical chemokine receptor 1 deficiency reduces atherogenesis in ApoE-knockout mice. [Cardiovasc Res. 106 \(3\): 478-87.](#)
 23. Babaei, S. *et al.* (2000) Blockade of endothelin receptors markedly reduces atherosclerosis in LDL receptor deficient mice: role of endothelin in macrophage foam cell formation. [Cardiovasc Res. 2000 Oct;48: 158-67.](#)
 24. Krishack, P.A. *et al.* (2015) Serum Amyloid A Facilitates Early Lesion Development in Ldlr^{-/-} Mice. [J Am Heart Assoc. 4 \(7\): pii: e001858.](#)
 25. Aoki, S. *et al.* (2015) Oral administration of the β -glucan produced by *Aureobasidium pullulans* ameliorates development of atherosclerosis in apolipoprotein E deficient mice [Journal Funct Foods. 18: 22-7.](#)
 26. Song, G. *et al.* (2015) Molecular hydrogen stabilizes atherosclerotic plaque in low-density lipoprotein receptor-knockout mice. [Free Radic Biol Med. 87: 58-68.](#)
 27. Takata, H. *et al.* (2015) Vascular angiotensin II type 2 receptor attenuates atherosclerosis via a kinin/NO-dependent mechanism. [J Renin Angiotensin Aldosterone Syst. 16 \(2\): 311-20.](#)
 28. Wezel, A. *et al.* (2015) Mast cells mediate neutrophil recruitment during atherosclerotic plaque progression. [Atherosclerosis. 241 \(2\): 289-96.](#)
 29. Oguiza A *et al.* (2015) Peptide-based inhibition of I κ B kinase/nuclear factor- κ B pathway protects against diabetes-associated nephropathy and atherosclerosis in a mouse model of type 1 diabetes. [Diabetologia. 58 \(7\): 1656-67.](#)
 30. Shuto, Y. *et al.* (2015) Repetitive Glucose Spikes Accelerate Atherosclerotic Lesion Formation in C57BL/6 Mice. [PLoS One. 10 \(8\): e0136840.](#)
 31. Peng, Y. *et al.* (2016) Inactivation of Semicarbazide-Sensitive Amine Oxidase Stabilizes the Established Atherosclerotic Lesions via Inducing the Phenotypic Switch of Smooth Muscle Cells. [PLoS One. 11 \(4\): e0152758.](#)
 32. Hong, Y.F. *et al.* (2016) *Lactobacillus acidophilus* K301 Inhibits Atherogenesis via Induction of 24 (S), 25-Epoxycholesterol-Mediated ABCA1 and ABCG1 Production and Cholesterol Efflux in Macrophages. [PLoS One. 11 \(4\): e0154302.](#)

33. Grootaert, M.O. *et al.* (2016) NecroX-7 reduces necrotic core formation in atherosclerotic plaques of Apoe knockout mice. [Atherosclerosis. 252: 166-74.](#)
34. Oguro, A. *et al.* (2003) NaF induces early differentiation of murine bone marrow cells along the granulocytic pathway but not the monocytic or preosteoclastic pathway *in vitro*. [In Vitro Cell Dev Biol Anim. 39 \(5-6\): 243-8.](#)
35. van der Sluis, R.J. *et al.* (2015) Haloperidol inhibits the development of atherosclerotic lesions in LDL receptor knockout mice. [Br J Pharmacol. 172 \(9\): 2397-405.](#)
36. Addison, C.L. *et al.* (2004) Overexpression of the duffy antigen receptor for chemokines (DARC) by NSCLC tumor cells results in increased tumor necrosis. [BMC Cancer. 4: 28.](#)
37. Neele, A.E. *et al.* (2018) Myeloid Kdm6b deficiency results in advanced atherosclerosis. [Atherosclerosis. 275: 156-65.](#)
38. Tang, G. *et al.* (2019) Metformin inhibited Nod-like receptor protein 3 inflammasomes activation and suppressed diabetes-accelerated atherosclerosis in apoE^{-/-} mice. [Biomed Pharmacother. 119: 109410.](#)
39. van Duijn, J. *et al.* (2019) CD8+ T-cells contribute to lesion stabilization in advanced atherosclerosis by limiting macrophage content and CD4+ T-cell responses. [Cardiovasc Res. 115 \(4\): 729-38.](#)
40. Kato, T. *et al.* (2020) A non-selective endothelin receptor antagonist bosentan modulates kinetics of bone marrow-derived cells in ameliorating pulmonary hypertension in mice. [Pulm Circ. 10 \(2\): 2045894020919355.](#)
41. Gajeton, J. *et al.* (2020) miR-467 Prevents Inflammation And Insulin Resistance In Response To Hyperglycemia [BioRxiv. Jun 11 Preprint \[Epub ahead of print\].](#)
42. Lecoeur, H. *et al.* (2020) Targeting Macrophage Histone H3 Modification as a Leishmania Strategy to Dampen the NF-κB/NLRP3-Mediated Inflammatory Response. [Cell Rep. 30 \(6\): 1870-1882.e4.](#)
43. van Duijn, J. *et al.* (2020) Tc17 CD8+ T cells accumulate in murine atherosclerotic lesions, but do not contribute to early atherosclerosis development [Cardiovasc Res. Oct 16 \[Epub ahead of print\].](#)
44. Baardman, J. *et al.* (2020) Macrophage ATP citrate lyase deficiency stabilizes atherosclerotic plaques. [Nat Commun. 11 \(1\): 6296.](#)
45. Luque-Martin, R. *et al.* (2019) Targeting Histone Deacetylases in Myeloid Cells Inhibits Their Maturation and Inflammatory Function With Limited Effects on Atherosclerosis. [Front Pharmacol. 10: 1242.](#)
46. Zhao, J. *et al.* (2019) Atherogenesis in the Carotid Artery with and without Interrupted Blood Flow of Two Hyperlipidemic Mouse Strains. [J Vasc Res. 56 \(5\): 241-254.](#)
47. Burris, R.L. *et al.* (2020) Maternal exposure to soy diet reduces atheroma in hyperlipidemic F1 offspring mice by promoting macrophage and T cell anti-inflammatory responses. [Atherosclerosis. 313: 26-34.](#)

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee 12 months from date of despatch

Acknowledgements This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com

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

Regulatory For research purposes only

Related Products

Recommended Useful Reagents

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

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

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_de@bio-rad.com

'M368165:200529'

Printed on 04 Jan 2021

© 2021 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)