

Datasheet: MCA947G

BATCH NUMBER 147450

Description:	RAT ANTI MOUSE CD169
Specificity:	CD169
Other names:	SIALOADHESIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MOMA-1
Isotype:	IgG2a
Quantity:	0.25 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			▪	
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Immunofluorescence	▪			

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
Species Cross Reactivity	Does not react with: Human, Rat
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Stromal (reticular) elements from mouse lymph nodes.
External Database Links	<p>UniProt:</p> <p>Q62230 Related reagents</p> <p>Entrez Gene:</p> <p>20612 Siglec1 Related reagents</p>
Synonyms	Sa, Sn
Fusion Partners	Spleen cells from hyperimmunized mice were fused with cells from the murine SP2/0 myeloma.
Specificity	<p>Rat anti Mouse CD169, clone MOMA-1 recognizes murine CD169, also known as sialoadhesin or Siglec-1. CD169 is a lectin-like receptor expressed by certain populations of macrophages including marginal zone metallophilic cells of the spleen, subcapsular macrophages of lymph nodes and stromal macrophages in bone marrow (Morris et al. 1991).</p> <p>CD169 is a ~185 kDa sialic acid binding receptor containing 17 immunoglobulin-like domains (Crocker et al. 1992). Expression of CD169 can be induced on macrophages in culture by a serum factor and further modulated by cytokine exposure (McWilliam et al. 1992).</p> <p>Rat anti mouse CD169, clone MOMA-1 has been used for the <i>in vivo</i> depletion of specific macrophage populations (Kraal et al. 1988).</p>
Histology Positive Control Tissue	Lymphoid tissue
References	<ol style="list-style-type: none"> 1. Kraal, G. and Janse, M. (1986) Marginal metallophilic cells of the mouse spleen identified by a monoclonal antibody. Immunology. 58: 665-9. 2. Oetke, C. et al. (2006) The antigen recognized by MOMA-1 is sialoadhesin. Immunol Lett. 106: 96-98. 3. Tumanov, A.V. et al. (2010) Cellular source and molecular form of TNF specify its distinct functions in organization of secondary lymphoid organs. Blood. 116 (18): 3456-64. 4. Karlsson, M.C. et al. (2003) Macrophages control the retention and trafficking of B lymphocytes in the splenic marginal zone. J Exp Med. 198: 333-40. 5. Kanayama, N. et al. (2005) Analysis of marginal zone B cell development in the mouse with limited B cell diversity: role of the antigen receptor signals in the recruitment of B cells

- to the marginal zone. [J Immunol. 174 \(3\): 1438-45.](#)
6. Höpken, U.E. *et al.* (2004) Distinct and overlapping roles of CXCR5 and CCR7 in B-1 cell homing and early immunity against bacterial pathogens. [J Leukoc Biol. 76 \(3\): 709-18.](#)
 7. Ferguson, A.R. *et al.* (2004) Marginal zone B cells transport and deposit IgM-containing immune complexes onto follicular dendritic cells. [Int Immunol. 16 \(10\): 1411-22.](#)
 8. Girkontaite, I. *et al.* (2004) The sphingosine-1-phosphate (S1P) lysophospholipid receptor S1P3 regulates MAdCAM-1+ endothelial cells in splenic marginal sinus organization. [J Exp Med. 200 \(11\): 1491-501.](#)
 9. Acevedo-Suárez, C.A. *et al.* (2005) Uncoupling of anergy from developmental arrest in anti-insulin B cells supports the development of autoimmune diabetes. [J Immunol. 174 \(2\): 827-33.](#)
 10. Birjandi, S.Z. *et al.* (2011) Alterations in marginal zone macrophages and marginal zone B cells in old mice. [J Immunol. 186: 3441-51.](#)
 11. Bhattacharyya, S. *et al.* (2011) NFATc1 affects mouse splenic B cell function by controlling the calcineurin-NFAT signaling network. [J Exp Med. 208 \(4\): 823-39.](#)
 12. Jang, I.K. *et al.* (2011) Growth-factor receptor-bound protein-2 (Grb2) signaling in B cells controls lymphoid follicle organization and germinal center reaction. [Proc Natl Acad Sci U S A. 108: 7926-31.](#)
 13. Rehm, A. *et al.* (2011) Cooperative function of CCR7 and lymphotoxin in the formation of a lymphoma-permissive niche within murine secondary lymphoid organs. [Blood. 118 \(4\): 1020-33.](#)
 14. Mattsson, J. *et al.* (2011) Complement activation and complement receptors on follicular dendritic cells are critical for the function of a targeted adjuvant. [J Immunol. 187: 3641-52.](#)
 15. Whipple, E.C. *et al.* (2004) Analyses of the in vivo trafficking of stoichiometric doses of an anti-complement receptor 1/2 monoclonal antibody infused intravenously in mice. [J Immunol. 173 \(4\): 2297-306.](#)
 16. Zhang, Z. *et al.* (2012) Notch-RBP-J-Independent Marginal Zone B Cell Development in IgH Transgenic Mice with V(H) Derived from a Natural Polyreactive Antibody. [PLoS One. 7: e38894.](#)
 17. Matsuda T *et al.* (2015) The immunosenescence-related gene Zizimin2 is associated with early bone marrow B cell development and marginal zone B cell formation. [Immun Ageing. 12: 1.](#)
 18. Funakoshi, S. *et al.* (2015) BILL-cadherin/cadherin-17 contributes to the survival of memory B cells. [PLoS One. 10 \(1\): e0117566.](#)
 19. Xing Y *et al.* (2015) Positive Selection of Natural Poly-Reactive B Cells in the Periphery Occurs Independent of Heavy Chain Allelic Inclusion. [PLoS One. 10 \(5\): e0125747.](#)
 20. Carnrot, C. *et al.* (2011) Marginal zone B cells are naturally reactive to collagen type II and are involved in the initiation of the immune response in collagen-induced arthritis. [Cell Mol Immunol. 8 \(4\): 296-304.](#)
 21. Ding, Z. *et al.* (2016) IgE-mediated enhancement of CD4(+) T cell responses requires antigen presentation by CD8α(-) conventional dendritic cells. [Sci Rep. 6: 28290.](#)
 22. Bradford, B.M. *et al.* (2016) Prion pathogenesis is unaltered following down-regulation of SIGN-R1. [Virology. 497: 337-345.](#)
 23. Awasthi, A. *et al.* (2010) Rap1b facilitates NK cell functions via IQGAP1-mediated signalosomes. [J Exp Med. 207: 1923-38.](#)

24. Flores, M. *et al.* (2015) FcγRIIB prevents inflammatory type I IFN production from plasmacytoid dendritic cells during a viral memory response. [J Immunol. 194 \(9\): 4240-50.](#)
25. Oh, D.S. *et al.* (2017) Transient Depletion of CD169⁺ Cells Contributes to Impaired Early Protection and Effector CD8⁺ T Cell Recruitment against Mucosal Respiratory Syncytial Virus Infection. [Front Immunol. 8: 819.](#)
26. Bogie, J.F. *et al.* (2018) CD169 is a marker for highly pathogenic phagocytes in multiple sclerosis. [Mult Scler. 24 \(3\): 290-300.](#)
27. Tsai, C.Y. *et al.* (2018) Bystander inhibition of humoral immune responses by Epstein-Barr virus LMP1. [Int Immunol. 30 \(12\): 579-90.](#)
28. Groh, J. *et al.* (2021) Immune modulation attenuates infantile neuronal ceroid lipofuscinosis in mice before and after disease onset [Brain Communications. fcab047 \[Epub ahead of print\].](#)

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. 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

Health And Safety Information

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA947G>
10040

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®550 , DyLight®650 , DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin

North & South America

Tel: +1 800 265 7376
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

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

'M369208:200529'

