

# Datasheet: MCA947GA

**BATCH NUMBER 157498**

<b>Description:</b>	RAT ANTI MOUSE CD169
<b>Specificity:</b>	CD169
<b>Other names:</b>	SIALOADHESIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MOMA-1
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Mouse
<b>Species Cross Reactivity</b>	Does not react with: Human, Rat
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	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><b>UniProt:</b></p> <p><a href="#">Q62230</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p> <p><a href="#">20612</a>   Siglec1   <a href="#">Related reagents</a></p>
Synonyms	Sa, Sn
Fusion Partners	Spleen cells from hyperimmunized mice were fused with cells from the murine SP2/0 myeloma.
Specificity	<p><b>Rat anti Mouse CD169, clone MOMA-1</b> 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 (<a href="#">Morris et al. 1991</a>).</p> <p>CD169 is a ~185 kDa sialic acid binding receptor containing 17 immunoglobulin-like domains (<a href="#">Crocker et al. 1992</a>). Expression of CD169 can be induced on macrophages in culture by a serum factor and further modulated by cytokine exposure (<a href="#">McWilliam et al. 1992</a>).</p> <p>Rat anti mouse CD169, clone MOMA-1 has been used for the <i>in vivo</i> depletion of specific macrophage populations (<a href="#">Kraal et al. 1988</a>).</p>
Histology Positive Control Tissue	Lymphoid tissue
References	<ol style="list-style-type: none"> <li>1. Kraal, G. and Janse, M. (1986) Marginal metallophilic cells of the mouse spleen identified by a monoclonal antibody. <a href="#">Immunology. 58: 665-9.</a></li> <li>2. Oetke, C. et al. (2006) The antigen recognized by MOMA-1 is sialoadhesin. <a href="#">Immunol Lett. 106: 96-98.</a></li> <li>3. Tumanov, A.V. et al. (2010) Cellular source and molecular form of TNF specify its distinct functions in organization of secondary lymphoid organs. <a href="#">Blood. 116 (18): 3456-64.</a></li> <li>4. Karlsson, M.C. et al. (2003) Macrophages control the retention and trafficking of B lymphocytes in the splenic marginal zone. <a href="#">J Exp Med. 198: 333-40.</a></li> <li>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</li> </ol>

- 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<sup>+</sup> Cells Contributes to Impaired Early Protection and Effector CD8<sup>+</sup> 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/MCA947GA>  
10040

#### Regulatory

For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®800</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>

#### North & South America

Tel: +1 800 265 7376  
Fax: +1 919 878 3751  
Email: [antibody\\_sales\\_us@bio-rad.com](mailto: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](mailto: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](mailto: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)

'M369209:200529'

