

## Datasheet: MCA947F

|                      |                           |
|----------------------|---------------------------|
| <b>Description:</b>  | RAT ANTI MOUSE CD169:FITC |
| <b>Specificity:</b>  | CD169                     |
| <b>Other names:</b>  | SIALOADHESIN              |
| <b>Format:</b>       | FITC                      |
| <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     | ■   |    |                | Neat               |
| Immunofluorescence | ■   |    |                |                    |

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.

|                                       |                                                                                               |                            |                          |
|---------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------|--------------------------|
| <b>Target Species</b>                 | Mouse                                                                                         |                            |                          |
| <b>Species Cross Reactivity</b>       | Does not react with: Human, Rat                                                               |                            |                          |
| <b>Product Form</b>                   | Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid                |                            |                          |
| <b>Max Ex/Em</b>                      | <b>Fluorophore</b>                                                                            | <b>Excitation Max (nm)</b> | <b>Emission Max (nm)</b> |
|                                       | FITC                                                                                          | 490                        | 525                      |
| <b>Preparation</b>                    | Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant |                            |                          |
| <b>Buffer Solution</b>                | Phosphate buffered saline                                                                     |                            |                          |
| <b>Preservative Stabilisers</b>       | 0.09% Sodium Azide                                                                            |                            |                          |
|                                       | 1% Bovine Serum Albumin                                                                       |                            |                          |
| <b>Approx. Protein Concentrations</b> | IgG concentration 0.1 mg/ml                                                                   |                            |                          |
| <b>Immunogen</b>                      | Stromal (reticular) elements from mouse lymph nodes.                                          |                            |                          |

**External Database  
Links**

**UniProt:**

[Q62230](#)   [Related reagents](#)

**Entrez Gene:**

[20612](#)   Siglec1   [Related reagents](#)

---

**Synonyms**

Sa, Sn

---

**Fusion Partners**

Spleen cells from hyperimmunized mice were fused with cells from the murine SP2/0 myeloma.

---

**Specificity**

**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](#)).

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](#)).

Rat anti mouse CD169, clone MOMA-1 has been used for the *in vivo* depletion of specific macrophage populations ([Kraal \*et al.\* 1988](#)).

---

**Flow Cytometry**

Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.

---

**References**

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. Martinez-Picado, J. *et al.* (2016) Identification of Siglec-1 null individuals infected with HIV-1. [Nat Commun. 7: 12412.](#)
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.](#)

#### 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.

#### Shelf Life

18 months from date of despatch.

#### 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 Negative Controls

[RAT IgG2a NEGATIVE CONTROL:FITC \(MCA1212F\)](#)

## 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](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)

'M301354:170109'

**Printed on 25 May 2018**

---

© 2018 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)