

## Datasheet: MCA469A488

<b>Description:</b>	MOUSE ANTI HUMAN CD9:Alexa Fluor® 488
<b>Specificity:</b>	CD9
<b>Other names:</b>	MRP-1
<b>Format:</b>	ALEXA FLUOR® 488
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MM2/57
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

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

Human

#### Species Cross Reactivity

Reacts with: Cat, Rhesus Monkey, Bovine, Dog, Rabbit, Horse, Pig, Mink, Llama, Ferret  
Based on sequence similarity, is expected to react with: Mustelid  
**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

#### Product Form

Purified IgG conjugated to Alexa Fluor® 488 - liquid

#### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®488	495	519

#### Preparation

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 0.05 mg/ml
<b>Immunogen</b>	Human platelet membranes
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P21926</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">928</a>    CD9    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	MIC3, TSPAN29
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells from the SP2/0 mouse myeloma line
<b>Specificity</b>	<p><b>Mouse anti Human CD9 antibody, clone MM2/57</b> recognizes human leukocyte antigen MIC3 also known as MRP-1 or CD9. CD9 is a 228 amino acid multi pass membrane glycoprotein belonging to the tetraspanin family with a molecular weight of ~24 kDa expressed by platelets, monocytes, some lymphocytes and endothelial cells.</p> <p>Mouse anti Human CD9 antibody, clone MM2/57 recognizes a conserved epitope on CD9 present on a wide range of mammalian species.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul
<b>References</b>	<ol style="list-style-type: none"> <li>1. Boucheix, C. <i>et al.</i> (1991) Molecular cloning of the CD9 antigen. A new family of cell surface proteins. <a href="#">J Biol Chem. 266 (1): 117-22.</a></li> <li>2. Brodersen, R. <i>et al.</i> (1998) Analysis of the immunological cross reactivities of 213 well characterized monoclonal antibodies with specificities against various leucocyte surface antigens of human and 11 animal species. <a href="#">Vet Immunol Immunopathol. 64 (1): 1-13.</a></li> <li>3. Ibrahim, S. <i>et al.</i> (2007) Screening of anti-human leukocyte monoclonal antibodies for reactivity with equine leukocytes <a href="#">Vet. Immunol Immunopathol. 119: 63-80</a></li> <li>4. Jennings, L. K. <i>et al.</i> (1995) CD9 cluster workshop report: cell surface binding and functional analysis. In S.F. Sclossman. <i>et al.</i> Editors. 1995. Leucocyte Typing V. White Cell Differentiation Antigens. Oxford University Press, New York, NY. 1249-1251.</li> <li>5. Martel, C.J. &amp; Aasted, B. (2009) Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. <a href="#">Vet Immunol Immunopathol. 132:109-15.</a></li> <li>6. Aasted, B. <i>et al.</i> (2007) Reactivity of monoclonal antibodies to human CD antigens with cells from mink. <a href="#">Vet Immunol Immunopathol. 119: 27-37.</a></li> <li>7. Davis, W.C. <i>et al.</i> (2007) Use of flow cytometry to identify monoclonal antibodies that recognize conserved epitopes on orthologous leukocyte differentiation antigens in goats,</li> </ol>

- llamas, and rabbits. [Vet Immunol Immunopathol. 119: 123-30.](#)
8. Ferrer, M. *et al.* (1998) Pattern of expression of tetraspanin antigen genes in Burkitt lymphoma cell lines. [Clin Exp Immunol. 113: 346-52.](#)
  9. Kao, Y.R. *et al.* (2003) Tumor-associated antigen L6 and the invasion of human lung cancer cells. [Clin Cancer Res. 9: 2807-16.](#)
  10. Müller, T. *et al.* (2009) A novel embryonic stem cell line derived from the common marmoset monkey (*Callithrix jacchus*) exhibiting germ cell-like characteristics. [Hum Reprod. 24: 1359-72.](#)
  11. Kubota, H. *et al.* (2011) Glial cell line-derived neurotrophic factor and endothelial cells promote self-renewal of rabbit germ cells with spermatogonial stem cell properties. [FASEB J. 25 \(8\): 2604-14.](#)
  12. Hogue, I.B. *et al.* (2011) Gag induces the coalescence of clustered lipid rafts and tetraspanin-enriched microdomains at HIV-1 assembly sites on the plasma membrane. [J Virol. 85 \(19\): 9749-66.](#)
  13. Löffler, S. *et al.* (1997) CD9, a tetraspan transmembrane protein, renders cells susceptible to canine distemper virus. [J Virol. 71: 42-9.](#)
  14. Meister, R.K. *et al.* (2007) Progress in the discovery and definition of monoclonal antibodies for use in feline research. [Vet Immunol Immunopathol. 119: 38-46.](#)
  15. Bearden, R.N. *et al.* (2017) *In-vitro* characterization of canine multipotent stromal cells isolated from synovium, bone marrow, and adipose tissue: a donor-matched comparative study. [Stem Cell Res Ther. 8 \(1\): 218.](#)
  16. Jackson, C.E. *et al.* (2017) Effects of Inhibiting VPS4 Support a General Role for ESCRTs in Extracellular Vesicle Biogenesis. [Biophys J. 113 \(6\): 1342-1352.](#)
  17. Wąchalska, M. *et al.* (2020) Palmitoylated mNeonGreen Protein as a Tool for Visualization and Uptake Studies of Extracellular Vesicles [Membranes. 10 \(12\): 373.](#)
  18. Fish, E.J. *et al.* (2018) Malignant canine mammary epithelial cells shed exosomes containing differentially expressed microRNA that regulate oncogenic networks. [BMC Cancer. 18 \(1\): 832.](#)
  19. Fu, T. *et al.* (2021) Biomimetic vascularized adipose-derived mesenchymal stem cells bone-periosteum graft enhances angiogenesis and osteogenesis in a rabbit spine fusion model. [Stem Cell Res Therapy.15 Sep \[Epub ahead of print\].](#)
  20. Viswanathan, K. *et al.* (2017) Quantitative membrane proteomics reveals a role for tetraspanin enriched microdomains during entry of human cytomegalovirus. [PLoS One. 12 \(11\): e0187899.](#)
  21. Kwasnik, M. *et al.* (2023) Protein-Coding Region Derived Small RNA in Exosomes from Influenza A Virus-Infected Cells. [Int J Mol Sci. 24 \(1\): 867.](#)

<b>Storage</b>	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.
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	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](mailto: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 Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL:Alexa Fluor® 488 \(MCA691A488\)](#)

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

**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)

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

'M385617:210513'

**Printed on 09 Jan 2023**

---

© 2023 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)