

## Datasheet: MCA2297A488T

<b>Description:</b>	RAT ANTI MOUSE CD106:Alexa Fluor® 488
<b>Specificity:</b>	CD106
<b>Other names:</b>	VCAM-1
<b>Format:</b>	ALEXA FLUOR® 488
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MVCAM A (429)
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	25 TESTS/0.25ml

### 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 - 1/10

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>Product Form</b>	Purified IgG conjugated to Alexa Fluor® 488 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®488	495	519
<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</b>	0.09% sodium azide (NaN <sub>3</sub> )		
<b>Stabilisers</b>	1% bovine serum albumin		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml		

<b>Immunogen</b>	Stromal cell line PA6.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P29533</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">22329</a> Vcam1    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	Vcam-1
<b>RRID</b>	AB_2214040
<b>Fusion Partners</b>	Spleen cells from immunised Lewis rats were fused with cells of the mouse P3X63Ag8.653 myeloma cell line.
<b>Specificity</b>	<p><b>Rat anti Mouse CD106 antibody, clone MVCAM A (429)</b> recognizes murine vascular adhesion molecule 1 (VCAM-1), a cell surface glycoprotein that is also known as CD106. CD106 is expressed predominantly on endothelial cells and expression is up-regulated during inflammation. The ligand for CD106 is the alpha 4 subunit (CD49d) of the integrin VLA-4 (CD49d/CD29).</p> <p>Rat anti Mouse CD106 antibody, clone MVCAM A (429) is reported to partially block VCAM-1 mediated functions (<a href="#">Kinashi and Springer 1994</a>).</p>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl. The Fc region of monoclonal antibodies may bind to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR ( <a href="#">BUF041A/BUF041B</a> ).
<b>References</b>	<ol style="list-style-type: none"> <li>Lau, H.Y. and Bhatia, M. (2007) Effect of CP-96,345 on the expression of adhesion molecules in acute pancreatitis in mice. <a href="#">Am J Physiol Gastrointest Liver Physiol. 292: G1283-92.</a></li> <li>Hamada, T. <i>et al.</i> (2008) Metalloproteinase-9 deficiency protects against hepatic ischemia/reperfusion injury. <a href="#">Hepatology. 47: 186-98.</a></li> <li>Hamada, T. <i>et al.</i> (2009) Inducible nitric oxide synthase deficiency impairs matrix metalloproteinase-9 activity and disrupts leukocyte migration in hepatic ischemia/reperfusion injury. <a href="#">Am J Pathol. 174: 2265-77.</a></li> <li>Hall, L.J. <i>et al.</i> (2010) Probing local innate immune responses after mucosal immunisation. <a href="#">J Immune Based Ther Vaccines. 8: 5.</a></li> <li>Woo, J.M. <i>et al.</i> (2010) Treatment with apolipoprotein A-1 mimetic peptide reduces lupus-like manifestations in a murine lupus model of accelerated atherosclerosis. <a href="#">Arthritis Res Ther. 12(3):R93.</a></li> <li>Chen, Q. <i>et al.</i> (2011) Macrophage binding to receptor VCAM-1 transmits survival signals in breast cancer cells that invade the lungs. <a href="#">Cancer Cell. 20 (4): 538-49.</a></li> <li>Kuriyama, N. <i>et al.</i> (2011) Tenascin-C: a novel mediator of hepatic ischemia and reperfusion injury. <a href="#">Hepatology. 54 (6): 2125-36.</a></li> <li>David, S. <i>et al.</i> (2011) Acute administration of recombinant Angiopoietin-1 ameliorates multiple-organ dysfunction syndrome and improves survival in murine sepsis. <a href="#">Cytokine. 55</a></li> </ol>

[\(2\): 251-9.](#)

9. Kümpers, P. *et al.* (2011) The synthetic tie2 agonist peptide vasculotide protects against vascular leakage and reduces mortality in murine abdominal sepsis. [Crit Care. 15 \(5\): R261.](#)

10. Winnik S *et al.* (2011) Dietary  $\alpha$ -linolenic acid diminishes experimental atherogenesis and restricts T cell-driven inflammation. [Eur Heart J. 32 \(20\): 2573-84.](#)

11. Püntener, U. *et al.* (2012) Long-term impact of systemic bacterial infection on the cerebral vasculature and microglia. [J Neuroinflammation. 9: 146.](#)

12. Li, M. *et al.* (2014) The indoleamine 2,3-dioxygenase pathway controls complement-dependent enhancement of chemo-radiation therapy against murine glioblastoma. [J Immunother Cancer. 2: 21.](#)

13. Braach, N. *et al.* (2014) RAGE controls activation and anti-inflammatory signalling of protein C. [PLoS One. 9 \(2\): e89422.](#)

14. El Amki, M. *et al.* (2018) Improved Reperfusion and Vasculoprotection by the Poly(ADP-Ribose)Polymerase Inhibitor PJ34 After Stroke and Thrombolysis in Mice. [Mol Neurobiol. 55 \(12\): 9156-68.](#)

15. Basic, M. *et al.* (2020) Lymph Node Stromal Cells From Different Draining Areas Distinctly Regulate the Development of Chronic Intestinal Inflammation. [Front Immunol. 11: 549473.](#)

---

**Storage** 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.

---

**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](mailto:outlicensing@thermofisher.com)

---

**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2297A488T>  
10041

---

**Regulatory** For research purposes only

---

## Related Products

## Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 488 \(MCA1212A488\)](#)

## 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)

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)

'M414229:221205'

Printed on 12 Aug 2023

---

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