

Datasheet: MCA2297A488

Description:	RAT ANTI MOUSE CD106:Alexa Fluor® 488
Specificity:	CD106
Other names:	VCAM-1
Format:	ALEXA FLUOR® 488
Product Type:	Monoclonal Antibody
Clone:	MVCAM A (429)
Isotype:	IgG2a
Quantity:	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.

	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.

Target Species	Mouse		
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		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% sodium azide (NaN ₃)		
Stabilisers	1% bovine serum albumin		
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml		

Immunogen	Stromal cell line PA6.
External Database Links	<p>UniProt: P29533 Related reagents</p> <p>Entrez Gene: 22329 Vcam1 Related reagents</p>
Synonyms	Vcam-1
RRID	AB_566432
Fusion Partners	Spleen cells from immunised Lewis rats were fused with cells of the mouse P3X63Ag8.653 myeloma cell line.
Specificity	<p>Rat anti Mouse CD106 antibody, clone MVCAM A (429) 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 (Kinashi and Springer 1994).</p>
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ 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 (BUF041A/BUF041B).
References	<ol style="list-style-type: none"> Lau, H.Y. and Bhatia, M. (2007) Effect of CP-96,345 on the expression of adhesion molecules in acute pancreatitis in mice. Am J Physiol Gastrointest Liver Physiol. 292: G1283-92. Hamada, T. <i>et al.</i> (2008) Metalloproteinase-9 deficiency protects against hepatic ischemia/reperfusion injury. Hepatology. 47: 186-98. 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. Am J Pathol. 174: 2265-77. Hall, L.J. <i>et al.</i> (2010) Probing local innate immune responses after mucosal immunisation. J Immune Based Ther Vaccines. 8: 5. 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. Arthritis Res Ther. 12(3):R93. Chen, Q. <i>et al.</i> (2011) Macrophage binding to receptor VCAM-1 transmits survival signals in breast cancer cells that invade the lungs. Cancer Cell. 20 (4): 538-49. Kuriyama, N. <i>et al.</i> (2011) Tenascin-C: a novel mediator of hepatic ischemia and reperfusion injury. Hepatology. 54 (6): 2125-36. David, S. <i>et al.</i> (2011) Acute administration of recombinant Angiopoietin-1 ameliorates multiple-organ dysfunction syndrome and improves survival in murine sepsis. Cytokine. 55

[\(2\): 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 α -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

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Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2297A488>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

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

North & South Tel: +1 800 265 7376

Worldwide

Tel: +44 (0)1865 852 700

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