

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 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.

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		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml		
Immunogen	Stromal cell line PA6.		
External Database Links	UniProt: P29533 Related reagents		

Entrez Gene:

[22329](#) Vcam1 [Related reagents](#)

Synonyms	Vcam-1
Fusion Partners	Spleen cells from immunised Lewis rats were fused with cells of the mouse P3X63Ag8.653 myeloma cell line.
Specificity	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). Rat anti Mouse CD106 antibody, clone MVCAM A (429) is reported to partially block VCAM-1 mediated functions (Kinashi and Springer 1994).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul. The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. This may be reduced by using SeroBlock FcR (BUF041A/B).
References	1. Kinashi, T. and Springer, T.A. (1994) Adhesion molecules in hematopoietic cells. Blood Cells. 20:25-44. 2. Wormley, F.L. Jr <i>et al.</i> (2001) Cell adhesion molecule and lymphocyte activation marker expression during experimental vaginal candidiasis. Infect Immun. 69 (8): 5072-9. 3. 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. 4. Hall, L.J. <i>et al.</i> (2010) Probing local innate immune responses after mucosal immunisation. J Immune Based Ther Vaccines. 8: 5. 5. Winnik S <i>et al.</i> (2011) Dietary α-linolenic acid diminishes experimental atherogenesis and restricts T cell-driven inflammation. Eur Heart J. 32 (20): 2573-84. 6. 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. 7. Hamada, T. <i>et al.</i> (2008) Metalloproteinase-9 deficiency protects against hepatic ischemia/reperfusion injury. Hepatology. 47: 186-98. 8. Baumer, Y. <i>et al.</i> (2011) Telomerase-based immortalization modifies the angiogenic/inflammatory responses of human coronary artery endothelial cells. Exp Biol Med (Maywood). 236: 692-700. 9. 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. 10. Kumpers, P. <i>et al.</i> (2011) The synthetic tie2 agonist peptide vasculotide protects against vascular leakage and reduces mortality in murine abdominal sepsis. Crit Care. 15 (5): R261. 11. Püntener, U. <i>et al.</i> (2012) Long-term impact of systemic bacterial infection on the cerebral vasculature and microglia. J Neuroinflammation. 9: 146. 12. 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. 13. Kuriyama, N. <i>et al.</i> (2011) Tenascin-C: a novel mediator of hepatic ischemia and reperfusion injury. Hepatology. 54 (6): 2125-36. 14. Braach, N. <i>et al.</i> (2014) RAGE controls activation and anti-inflammatory signalling of protein C. PLoS One. 9 (2): e89422.

15. 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.](#)

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.
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
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:Alexa Fluor® 488 \(MCA1212A488\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: 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	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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