

Datasheet: MCA2297A488T

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:	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.

	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.
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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 \(MCA1212A488\)](#)

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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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