

Datasheet: MCA2297GA

BATCH NUMBER 163607

Description:	RAT ANTI MOUSE CD106
Specificity:	CD106
Other names:	VCAM-1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MVCAM A (429)
Isotype:	IgG2a
Quantity:	0.1 mg

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	▪			1/10 - 1/50
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Immunofluorescence	▪			

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 - liquid
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

Carrier Free Yes

Approx. Protein Concentrations IgG concentration 1.0 mg/ml

Immunogen Stromal cell line PA6.

External Database Links

UniProt:

[P29533](#)

[Related reagents](#)

Entrez Gene:

[22329](#)

Vcam1

[Related reagents](#)

Synonyms Vcam-1

RRID AB_566430

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 10^6 cells in 100ul.

References

1. Kinashi, T. and Springer, T.A. (1994) Adhesion molecules in hematopoietic cells. [Blood Cells. 20:25-44.](#)
2. 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.](#)
3. Woo, J.M. *et al.* (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. *et al.* (2010) Probing local innate immune responses after mucosal immunisation. [J Immune Based Ther Vaccines. 8: 5.](#)
5. 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.](#)
6. Hamada, T. *et al.* (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. *et al.* (2008) Metalloproteinase-9 deficiency protects against hepatic ischemia/reperfusion injury. [Hepatology. 47: 186-98.](#)
8. Baumer, Y. *et al.* (2011) Telomerase-based immortalization modifies the angiogenic/inflammatory responses of human coronary artery endothelial cells. [Exp Biol Med \(Maywood\). 236: 692-700.](#)
9. 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.](#)
10. Kumpers, 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.](#)
11. Püntener, U. *et al.* (2012) Long-term impact of systemic bacterial infection on the cerebral vasculature and microglia. [J Neuroinflammation. 9: 146.](#)
12. David, S. *et al.* (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. *et al.* (2011) Tenascin-C: a novel mediator of hepatic ischemia and reperfusion injury. [Hepatology. 54 \(6\): 2125-36.](#)
14. Braach, N. *et al.* (2014) RAGE controls activation and anti-inflammatory signalling of protein C. [PLoS One. 9 \(2\): e89422.](#)
15. 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.](#)
16. 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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2297GA 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Rabbit Anti Rat IgG (STAR17...)	FITC

Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®550 , DyLight®650 , DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL \(MCA1212\)](#)

North & South America	Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@bio-rad.com		Email: antibody_sales_uk@bio-rad.com		Email: 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
'M383779:210513'

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