

## Datasheet: MCA2297

**BATCH NUMBER 151780**

<b>Description:</b>	RAT ANTI MOUSE CD106
<b>Specificity:</b>	CD106
<b>Other names:</b>	VCAM-1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MVCAM A (429)
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.25 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](http://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.

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified IgG - liquid
<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

## 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\_566429

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  $\alpha$ -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.](#)

<b>Storage</b>	<p>Store at +4°C or at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2297">https://www.bio-rad-antibodies.com/SDS/MCA2297</a></p> <p>10040</p>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>

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 \(MCA1212\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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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)  
'M366583:200529'

Printed on 14 Mar 2024

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