

Datasheet: MCA2297

BATCH NUMBER 168478

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

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/10 - 1/50
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Immunofluorescence	▪			

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 - 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 (NaN ₃)

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 immunized 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 10µl of the suggested working dilution to label 10⁶ cells in 100µl

References

1. 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.](#)
2. Hamada, T. *et al.* (2008) Metalloproteinase-9 deficiency protects against hepatic ischemia/reperfusion injury. [Hepatology. 47: 186-98.](#)
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4. Hall, L.J. *et al.* (2010) Probing local innate immune responses after mucosal immunisation. [J Immune Based Ther Vaccines. 8: 5.](#)
5. 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.](#)
6. Chen, Q. *et al.* (2011) Macrophage binding to receptor VCAM-1 transmits survival signals in breast cancer cells that invade the lungs. [Cancer Cell. 20 \(4\): 538-49.](#)

7. Kuriyama, N. *et al.* (2011) Tenascin-C: a novel mediator of hepatic ischemia and reperfusion injury. [Hepatology. 54 \(6\): 2125-36.](#)
8. 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.](#)
9. Kämpers, 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.

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/MCA2297>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®550 , DyLight®650 , DyLight®800
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin

Rabbit Anti Rat IgG (STAR21...)

[HRP](#)

Rabbit Anti Rat IgG (STAR17...)

[FITC](#)

Recommended Negative Controls

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

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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