

Datasheet: MCA907PE **BATCH NUMBER INN1611**

Description:	MOUSE ANTI HUMAN CD106:RPE
Specificity:	CD106
Other names:	VCAM-1
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	1.G11B1
Isotype:	lgG1
Quantity:	100 TESTS

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.biorad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	-			Neat - 1/10

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	Human			
Species Cross Reactivity	reactivity is derived	ivity and working condit from testing within our l	ions may vary between species. Cros aboratories, peer-reviewed publicatio ors. Please refer to references indicat	ns or
Product Form	Purified IgG conjuga	ated to R. Phycoerythrir	n (RPE) - lyophilized	
Reconstitution		en during reconstitution	as the protein may appear as a film a t the vial is gently mixed after reconst	
Max Ex/Em	Fluorophore RPE 488nm laser	Excitation Max (nm) 496	Emission Max (nm) 578	

Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide (NaN ₃)
Stabilisers	1% Bovine Serum Albumin
	5% Sucrose
External Database	
Links	UniProt:
	P19320 Related reagents
	Entrez Gene:
	7412 VCAM1 Related reagents
Synonyms	L1CAM
Specificity	Mouse anti Human CD106 antibody, clone 1.G11B1 recognizes human VCAM-1, a ~110 kDa molecule whose ligand is VLA4. The antigen is expressed on activated endothelial cells and on some tissue macrophages, bone marrow fibroblasts and myoblasts.
	Mouse anti Human CD106 antibody, clone 1.G11B1 inhibits cellular adhesion mediated by VCAM-1 (Patel 1998).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul
References	1. Thornhill, M.H. <i>et al.</i> (1991) Tumor necrosis factor combines with IL-4 or IFN-gamma to selectively enhance endothelial cell adhesiveness for T cells. The contribution of vascular cell adhesion molecule-1-dependent and -independent binding mechanisms. <u>J Immunol.</u> 146 (2): 592-8.
	2. Rosenman, S.J. <i>et al.</i> (1995) Cytokine-induced expression of vascular cell adhesion molecule-1 (VCAM-1) by astrocytes and astrocytoma cell lines. <u>J Immunol. 154 (4): 1888-99.</u>
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	synoviocytes. Arthritis Rheum. 43 (5): 1115-21.
	4. Ali, S. et al. (2000) Intercellular cell adhesion molecule-1, vascular cell adhesion
	molecule-1, and regulated on activation normal T cell expressed and secreted are
	expressed by human breast carcinoma cells and support eosinophil adhesion and activation. Am J Pathol. 157: 313-21.
	5. Faure, J.P. <i>et al.</i> (2002) Polyethylene glycol reduces early and long-term cold ischemia-
	reperfusion and renal medulla injury. <u>J Pharmacol Exp Ther. 302 (3): 861-70.</u> 6. Hauet, T. <i>et al.</i> (2002) Polyethylene glycol reduces the inflammatory injury due to cold

ischemia/reperfusion in autotransplanted pig kidneys. <u>Kidney Int. 62: 654-67.</u>
7. Cabeza, N. *et al.* (2004) Surface expression of collagen receptor Fc receptor-

gamma/glycoprotein VI is enhanced on platelets in type 2 diabetes and mediates release

- of CD40 ligand and activation of endothelial cells. Diabetes 53: 2117-21.
- 8. Dunoyer-Geindre, S. *et al.* (2004) Aspirin inhibits endothelial cell activation induced by antiphospholipid antibodies. <u>J Thromb Haemost. 2: 1176-81.</u>
- 9. Pelletier M, Girard D. (2005) Interleukin-15 increases neutrophil adhesion onto human respiratory epithelial A549 cells and attracts neutrophils *in vivo*. <u>Clin Exp Immunol</u>. 141: 315-25.
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- 12. Corvaisier, M. *et al.* (2005) V gamma 9V delta 2 T cell response to colon carcinoma cells. J Immunol. 175: 5481-8.
- 13. Kahler, C.M. (2007) Peripheral infusion of rat bone marrow derived endothelial progenitor cells leads to homing in acute lung injury. Respir Res. 8: 50.
- 14. Holzwarth, C. *et al.* (2010) Low physiologic oxygen tensions reduce proliferation and differentiation of human multipotent mesenchymal stromal cells. <u>BMC Cell Biol. 11: 11.</u>
- 15. Ruschulte, H. *et al.* (2011) Adrenoceptor stimulation does not affect ICAM-1 and VCAM-1 expression *in vitro*. <u>BMC Res Notes. 4: 40.</u>
- 16. May, R.D. *et al.* (2012) Preclinical development of CAT-354, an IL-13 neutralizing antibody, for the treatment of severe uncontrolled asthma. <u>Br J Pharmacol. 166 (1):</u> 177-93.
- 17. Murphy, A.J. *et al.* (2013) Anti-inflammatory functions of apolipoprotein a-I and high-density lipoprotein are preserved in trimeric apolipoprotein a-I. <u>J Pharmacol Exp</u> Ther. 344: 41-9.
- 18. Chadderdon, S.M. *et al.* (2014) Proinflammatory endothelial activation detected by molecular imaging in obese nonhuman primates coincides with onset of insulin resistance and progressively increases with duration of insulin resistance. Circulation. 129 (4): 471-8.
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- 20. Zhang, J. *et al.* (2016) Bone mesenchymal stem cells differentiate into myofibroblasts in the tumor microenvironment. <u>Oncol Lett. 12 (1): 644-50.</u>
- 21. Lim, J.L. *et al.* (2016) Protective effects of monomethyl fumarate at the inflamed blood-brain barrier. <u>Microvasc Res. 105: 61-9.</u>
- 22. Schmidt, M. *et al.* (2016) Methods to Investigate the Role of Toll-Like Receptors in Allergic Contact Dermatitis. <u>Methods Mol Biol.</u> 1390: 319-40.
- 23. Al-Qaissi, A. *et al.* (2019) The CD105:CD106 microparticle ratio is CD106 dominant in polycystic ovary syndrome compared to type 2 diabetes and healthy subjects. <u>Endocrine</u>. 66 (2): 220-225.
- 24. Lauranzano, E. *et al.* (2019) A Microfluidic Human Model of Blood-Brain Barrier Employing Primary Human Astrocytes. <u>Adv Biosyst. 3 (7): e1800335.</u>
- 25. Hara, H. *et al.* (2021) Stable expression of the human thrombomodulin transgene in pig endothelial cells is associated with a reduction in the inflammatory response. <u>Cytokine</u>. 148: 155580.
- 26. Kohs, T.C.L. *et al.* (2022) Ibrutinib Inhibits BMX-Dependent Endothelial VCAM-1 Expression In Vitro and Pro-Atherosclerotic Endothelial Activation and Platelet Adhesion

In Vivo Cell Mol Bioeng. 18 Apr [Epub ahe

Further Reading	1. Kong, D.H. <i>et al.</i> (2018) Emerging Roles of Vascular Cell Adhesion Molecule-1 (VCAM-1) in Immunological Disorders and Cancer. <u>Int J Mol Sci. 19 (4): 1057.</u>
Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA907PE 20487
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M375691:210104'

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