

Datasheet: MCA907F

BATCH NUMBER 1015

Description:	MOUSE ANTI HUMAN CD106:FITC
Specificity:	CD106
Other names:	VCAM-1
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	1.G11B1
Isotype:	IgG1
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	▪			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	Human		
Species Cross Reactivity	Reacts with: Pig, Rhesus Monkey N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.		
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide 0.1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1mg/ml
External Database Links	<p>UniProt: P19320 Related reagents</p> <p>Entrez Gene: 7412 VCAM1 Related reagents</p>
Synonyms	L1CAM
RRID	AB_931695
Specificity	<p>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.</p> <p>Mouse anti Human CD106 antibody, clone 1.G11B1 inhibits cellular adhesion mediated by VCAM-1 (Patel 1998).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 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. J Immunol. 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. J Immunol. 154 (4): 1888-99. 3. Peterson, M.D. <i>et al.</i> (2005) Monocyte-induced endothelial calcium signaling mediates early xenogeneic endothelial activation. Am J Transplant 5 (2): 237-47. 4. Reparon-Schuijt, C.C. <i>et al.</i> (2000) Regulation of synovial B cell survival in rheumatoid arthritis by vascular cell adhesion molecule 1 (CD106) expressed on fibroblast-like synoviocytes. Arthritis Rheum. 43 (5): 1115-21. 5. Faure, J.P. <i>et al.</i> (2002) Polyethylene glycol reduces early and long-term cold ischemia-reperfusion and renal medulla injury. J Pharmacol Exp Ther. 302 (3): 861-70. 6. Ruschulte, H. <i>et al.</i> (2011) Adrenoceptor stimulation does not affect ICAM-1 and VCAM-1 expression <i>in vitro</i>. BMC Res Notes. 4: 40. 7. Old, E.A. <i>et al.</i> (2014) Monocytes expressing CX3CR1 orchestrate the development of vincristine-induced pain. J Clin Invest. 124 (5): 2023-36. 8. Cabeza, N. <i>et al.</i> (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.](#)
9. Corvaisier, M. *et al.* (2005) V gamma 9V delta 2 T cell response to colon carcinoma cells. [J Immunol. 175: 5481-8.](#)
 10. Dunoyer-Geindre, S. *et al.* (2004) Aspirin inhibits endothelial cell activation induced by antiphospholipid antibodies. [J Thromb Haemost. 2: 1176-81.](#)
 11. Hauet, T. *et al.* (2002) Polyethylene glycol reduces the inflammatory injury due to cold ischemia/reperfusion in autotransplanted pig kidneys. [Kidney Int. 62: 654-67.](#)
 12. Kindle, L. *et al.* (2005) Human microvascular endothelial cell activation by IL-1 and TNF-alpha stimulates the adhesion and transendothelial migration of circulating human CD14+ monocytes that develop with RANKL into functional osteoclasts. [J Bone Miner Res. 21: 193-206.](#)
 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. Norling, L.V. *et al.* (2008) Inhibitory control of endothelial galectin-1 on *in vitro* and *in vivo* lymphocyte trafficking. [FASEB J. 22: 682-90.](#)
 15. Colleselli, D. *et al.* (2006) Inhibition of cyclooxygenase (COX)-2 affects endothelial progenitor cell proliferation. [Exp Cell Res. 312: 2933-41.](#)
 16. Hayashida, K. *et al.* (2000) Rheumatoid arthritis synovial stromal cells inhibit apoptosis and up-regulate Bcl-xL expression by B cells in a CD49/CD29-CD106-dependent mechanism. [J Immunol. 164: 1110-6.](#)
 17. 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.](#)
 18. Pelletier M, Girard D. (2005) Interleukin-15 increases neutrophil adhesion onto human respiratory epithelial A549 cells and attracts neutrophils *in vivo*. [Clin Exp Immunol. 141: 315-25.](#)
 19. Murphy, A.J. *et al.* (2013) Anti-inflammatory functions of apolipoprotein a-I and high-density lipoprotein are preserved in trimeric apolipoprotein a-I. [J Pharmacol Exp Ther. 344: 41-9.](#)
 20. 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.](#)
 21. Zhang, J. *et al.* (2016) Bone mesenchymal stem cells differentiate into myofibroblasts in the tumor microenvironment. [Oncol Lett. 12 \(1\): 644-50.](#)
 22. Lim, J.L. *et al.* (2016) Protective effects of monomethyl fumarate at the inflamed blood-brain barrier. [Microvasc Res. 105: 61-9.](#)
 23. Holzwarth, C. *et al.* (2010) Low physiologic oxygen tensions reduce proliferation and differentiation of human multipotent mesenchymal stromal cells. [BMC Cell Biol. 11: 11.](#)
 24. Schmidt, M. *et al.* (2016) Methods to Investigate the Role of Toll-Like Receptors in Allergic Contact Dermatitis. [Methods Mol Biol. 1390: 319-40.](#)
 25. May, R.D. *et al.* (2012) Preclinical development of CAT-354, an IL-13 neutralizing antibody, for the treatment of severe uncontrolled asthma. [Br J Pharmacol. 166 \(1\): 177-93.](#)

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.

Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA907F 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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
----------------------------------	---	------------------	---	---------------	---

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)
'M369130:200529'

Printed on 18 Jan 2024