

Datasheet: MCA503PB

BATCH NUMBER 1701

Description:	RAT ANTI HUMAN CD18:Pacific Blue®
Specificity:	CD18
Other names:	INTEGRIN BETA 2 CHAIN
Format:	Pacific Blue®
Product Type:	Monoclonal Antibody
Clone:	YFC118.3
Isotype:	IgG2b
Quantity:	100 TESTS/1ml

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

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	Reacts with: Dog, Guinea Pig 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 Pacific Blue - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Pacific Blue®	410	455
Preparation	Purified IgG prepared by affinity chromatography on Protein G		
Buffer Solution	Phosphate buffered saline		

Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
Immunogen	Human neutrophils
External Database Links	<p>UniProt: P05107 Related reagents</p> <p>Entrez Gene: 3689 ITGB2 Related reagents</p>
Synonyms	CD18, MFI7
Fusion Partners	Spleen cells from immunized LOU rats were fused with cells of the rat Y3/Ag.1.2.3 myeloma cell line
Specificity	<p>Rat anti Human CD18 antibody, clone YFC118.3 was clustered at the Fourth International Workshop on Leucocyte Differentiation Antigens (code number N221) as recognizing the CD18 antigen.</p> <p>CD18 is an integral membrane glycoprotein of ~95 kDa, also known as the beta 2 chain, of the LFA-1 complex. CD18 links non-covalently to either CD11a, b or c molecules forming the heteromeric LFA-1 complex. CD18 acts as the receptor for ICAM-1 and is important for cell adhesion and cell-cell interactions (Reina & Espel 2017).</p> <p>Rat anti Human CD18 antibody, clone YFC118.3 demonstrates strong reactivity with leucocytes and is not reactive with platelets.</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. Bindon, C.I. <i>et al.</i> (1988) Importance of antigen specificity for complement-mediated lysis by monoclonal antibodies. Eur J Immunol. 18 (10): 1507-14. 2. Chabanne, L. <i>et al.</i> (1994) Screening of 78 monoclonal antibodies directed against human leukocyte antigens for cross-reactivity with surface markers on canine lymphocytes. Tissue Antigens. 43 (3): 202-5. 3. Sampaio, W.M. <i>et al.</i> (2007) <i>In vitro</i> binding and survival assays of Leishmania parasites to peripheral blood monocytes and monocyte-derived macrophages isolated from dogs naturally and experimentally infected with <i>Leishmania chagasi</i>. BMC Vet Res. 3:11. 4. Canalli, A.A. <i>et al.</i> (2011) Participation of Mac-1, LFA-1 and VLA-4 integrins in the in vitro adhesion of sickle cell disease neutrophils to endothelial layers, and reversal of adhesion by simvastatin. Haematologica. 96: 526-33. 5. Gonçalves, R. <i>et al.</i> (2005) A sensitive flow cytometric methodology for studying the binding of <i>L. chagasi</i> to canine peritoneal macrophages. BMC Infect Dis. 5:39.

6. Zimmerman, K.L. *et al.* (2013) Leukocyte adhesion deficiency type I in a mixed-breed dog. [J Vet Diagn Invest. 25: 291-6.](#)
7. Araújo, M.S. *et al.* (2011) Immunological changes in canine peripheral blood leukocytes triggered by immunization with first or second generation vaccines against canine visceral leishmaniasis. [Vet Immunol Immunopathol. 141: 64-75.](#)
8. Garland, R.J. *et al.* (2002) Human CD8+ CTL recognition and in vitro lysis of herpes simplex virus-infected cells by a non-MHC restricted mechanism. [Scand J Immunol. 55: 61-9.](#)
9. Grote, K. *et al.* (2007) The angiogenic factor CCN1 promotes adhesion and migration of circulating CD34+ progenitor cells: potential role in angiogenesis and endothelial regeneration. [Blood. 110: 877-85.](#)
10. Holst, B.S. *et al.* (2010) Expression of four canine leukocyte adhesion factors in fresh and stored whole blood samples evaluated using a no-lyse, no-wash method. [Vet Immunol Immunopathol. 139: 271-6.](#)
11. Kupatt, C. *et al.* (1999) Tumor necrosis factor-alpha contributes to ischemia- and reperfusion-induced endothelial activation in isolated hearts. [Circ Res. 84: 392-400.](#)
12. Marconato, L. (2013) The dog as a possible animal model for human non-Hodgkin lymphoma: a review. [Hematol Oncol. 31: 1-9.](#)
13. Spring, F.A. *et al.* (2001) Intercellular adhesion molecule-4 binds alpha(4)beta(1) and alpha(V)-family integrins through novel integrin-binding mechanisms. [Blood. 98: 458-66.](#)
14. Salvatierra, A. *et al.* (2001) Antithrombin III prevents early pulmonary dysfunction after lung transplantation in the dog. [Circulation. 104: 2975-80.](#)
15. Mizuno, T. *et al.* (1997) cDNA cloning and chromosomal localization of the human telencephalin and its distinctive interaction with lymphocyte function-associated antigen-1. [J Biol Chem. 272: 1156-63.](#)
16. Lana, S. *et al.* (2006) Diagnosis of mediastinal masses in dogs by flow cytometry. [J Vet Intern Med. 20: 1161-5.](#)
17. Waché, Y.J. *et al.* (2009) The mycotoxin deoxynivalenol inhibits the cell surface expression of activation markers in human macrophages. [Toxicology. 262: 239-44.](#)
18. Crosby, H.A. *et al.* (2009) Adhesion of human haematopoietic (CD34+) stem cells to human liver compartments is integrin and CD44 dependent and modulated by CXCR3 and CXCR4. [J Hepatol. 51: 734-49.](#)
19. Levy, O. *et al.* (2015) Apolipoprotein E promotes subretinal mononuclear phagocyte survival and chronic inflammation in age-related macular degeneration. [EMBO Mol Med. pii: e201404524.](#)
20. Alex, J. *et al.* (2005) Pretreatment with hyperbaric oxygen and its effect on neuropsychometric dysfunction and systemic inflammatory response after cardiopulmonary bypass: a prospective randomized double-blind trial. [J Thorac Cardiovasc Surg. 130: 1623-30.](#)
21. Sutcliffe, J.E.S. *et al.* (2017) Changes in the extracellular matrix surrounding human chronic wounds revealed by 2-photon imaging. [Int Wound J. Jul 20 \[Epub ahead of print\].](#)
22. Cremer, S.E. *et al.* (2019) Proteomic profiling of the thrombin-activated canine platelet secretome (CAPS). [PLoS One. 14 \(11\): e0224891.](#)

Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. 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
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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA503PB 10041
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

[RAT IgG2b NEGATIVE CONTROL:Pacific Blue® \(MCA6006PB\)](#)

Recommended Useful Reagents

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

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

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