

## Datasheet: MCA503PE

<b>Description:</b>	RAT ANTI HUMAN CD18:RPE
<b>Specificity:</b>	CD18
<b>Other names:</b>	INTEGRIN BETA 2 CHAIN
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	YFC118.3
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	100 TESTS

## Product Details

**RRID** AB\_321328

**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	▪			Neat

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: Dog, Guinea Pig  
**N.B.** Antibody reactivity and working conditions may vary between species.

**Product Form** Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

**Reconstitution** Reconstitute with 1 ml distilled water

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578

**Preparation** Purified IgG prepared by affinity chromatography on Protein G

**Buffer Solution** Phosphate buffered saline

**Preservative** 0.09% Sodium Azide  
**Stabilisers** 1% Bovine Serum Albumin  
 5% Sucrose

<b>Immunogen</b>	Human neutrophils
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P05107</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">3689</a>   ITGB2   <a href="#">Related reagents</a></p>
<b>Synonyms</b>	CD18, MFI7
<b>Fusion Partners</b>	Spleen cells from immunised LOU rats were fused with cells of the rat Y3/Ag.1.2.3 myeloma cell line
<b>Specificity</b>	<p><b>Rat anti Human CD18 antibody, clone YFC118.3</b> was clustered at the Fourth International Workshop on Leucocyte Differentiation Antigen (code number N221) as recognizing the CD18 antigen.</p> <p>The CD18 antigen is an integral membrane glycoprotein of ~95 kDa, known as the beta chain, of the LFA-1 complex. The CD18 antigen is non-covalently linked to CD11a, b, c molecules. The CD18 molecule is the receptor for ICAM-1 and is thus important for cell adhesion.</p> <p>The main cellular reactivity of Rat anti Human CD18 antibody, clone YFC118.3 is a strong reactivity with leucocytes (platelets negative).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 100ul whole blood or 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Bindon, C.I. <i>et al.</i> (1988) Importance of antigen specificity for complement-mediated lysis by monoclonal antibodies. <a href="#">Eur J Immunol. 18 (10): 1507-14.</a></li> <li>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. <a href="#">Tissue Antigens. 43 (3): 202-5.</a></li> <li>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>. <a href="#">BMC Vet Res. 3:11.</a></li> <li>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. <a href="#">Haematologica. 96: 526-33.</a></li> <li>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. <a href="#">BMC Infect Dis. 5:39.</a></li> <li>6. Zimmerman, K.L. <i>et al.</i> (2013) Leukocyte adhesion deficiency type I in a mixed-breed dog. <a href="#">J Vet Diagn Invest. 25: 291-6.</a></li> <li>7. Araújo, M.S. <i>et al.</i> (2011) Immunological changes in canine peripheral blood leukocytes triggered by immunization with first or second generation vaccines against canine visceral leishmaniasis. <a href="#">Vet Immunol Immunopathol. 141: 64-75.</a></li> <li>8. Garland, R.J. <i>et al.</i> (2002) Human CD8+ CTL recognition and in vitro lysis of herpes simplex virus-infected cells by a non-MHC restricted mechanism. <a href="#">Scand J Immunol. 55: 61-9.</a></li> <li>9. Grote, K. <i>et al.</i> (2007) The angiogenic factor CCN1 promotes adhesion and migration of circulating CD34+ progenitor cells: potential role in angiogenesis and endothelial regeneration. <a href="#">Blood. 110: 877-85.</a></li> <li>10. Holst, B.S. <i>et al.</i> (2010) Expression of four canine leukocyte adhesion factors in fresh and stored whole blood samples evaluated using a no-lyse, no-wash method. <a href="#">Vet Immunol Immunopathol. 139: 271-6.</a></li> </ol>

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 \[Epub ahead of print\].](#)

---

**Storage**

Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.

DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

---

**Guarantee**

18 months from date of reconstitution.

---

**Acknowledgements**

The isolation and characterisation of this cell line was carried out with help of funds supplied by the Medical Research Council, UK.

---

**Health And Safety Information**

Material Safety Datasheet documentation #10075 available at:  
10075: <https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf>

---

**Regulatory**

For research purposes only

---

## Related Products

### Recommended Negative Controls

[RAT IgG2b NEGATIVE CONTROL:RPE \(MCA6006PE\)](#)

### 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](mailto: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](mailto:antibody_sales_uk@bio-rad.com)  
'M341046:190109'

**Europe** Tel: +49 (0) 89 8090 95 21  
Fax: +49 (0) 89 8090 95 50  
Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

**Printed on 16 Mar 2019**

---

© 2019 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)