

Datasheet: MCA503PE

BATCH NUMBER INN1608

| | |
|----------------------|-------------------------|
| Description: | RAT ANTI HUMAN CD18:RPE |
| Specificity: | CD18 |
| Other names: | INTEGRIN BETA 2 CHAIN |
| Format: | RPE |
| Product Type: | Monoclonal Antibody |
| Clone: | YFC118.3 |
| Isotype: | IgG2b |
| 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.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. 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 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 Stabilisers | 0.09% Sodium Azide 1% Bovine Serum Albumin 5% Sucrose |
| Immunogen | Human neutrophils |
| External Database Links | <p>UniProt: P05107 Related reagents</p> <p>Entrez Gene: 3689 ITGB2 Related reagents</p> |
| Synonyms | CD18, MFI7 |
| RRID | AB_321328 |
| 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 100ul whole blood or 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. *et al.* (2005) A sensitive flow cytometric methodology for studying the binding of *L. chagasi* 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.](#)
 23. Wolf-Ringwall, A. *et al.* (2020) Prospective evaluation of flow cytometric

characteristics, histopathologic diagnosis and clinical outcome in dogs with naïve B-cell lymphoma treated with a 19-week CHOP protocol. [Vet Comp Oncol. 18 \(3\): 342-52.](#)

| | |
|----------------|--|
| 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 | 12 months from date of despatch |
|------------------|---------------------------------|

| | |
|-------------------------|---|
| 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 #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA503PE 20487 |
|--------------------------------------|--|

| | |
|-------------------|----------------------------|
| 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 | 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
'M375580:210104'

Printed on 29 Apr 2024

© 2024 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)