

## Datasheet: MCA503SBB700 BATCH NUMBER 100008099

RAT ANTI HUMAN CD18:StarBright Blue 700		
CD18		
INTEGRIN BETA 2 CHAIN		
StarBright Blue 700		
Monoclonal Antibody		
YFC118.3		
lgG2b		
100 TESTS/0.5ml		

# **Product Details**

Applications	S This product has been reported to work in the following applications. This inform derived from testing within our laboratories, peer-reviewed publications or pers communications from the originators. Please refer to references indicated for fur- information. For general protocol recommendations, please visit <u>www.bio-</u> rad-antibodies.com/protocols.				
		Yes N	Not Determined	Suggested Dilution	
	Flow Cytometry	-		Neat	
	hnique this does not				
	necessarily exclude its use in such procedures. Suggested working dilutions are given 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	Reacts with: Dog, Guinea Pig				
Reactivity	<b>N.B.</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 StarBright Blue 700 - liquid				
Max Ex/Em	Fluorophore	Excitation Max (	nm) Emission Max (nm)		
	StarBright Blue 700	473	703		
Preparation	Purified IgG prepared supernatant	by affinity chrom	atography on Protein G fro	om tissue culture	

Buffer Solution	Phosphate buffered saline	
Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20	
Immunogen	Human neutrophils	
External Database Links	UniProt: <u>P05107</u> <u>Related reagents</u> Entrez Gene: <u>3689</u> ITGB2 <u>Related reagents</u>	
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	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.         CD18 is an integral membrane glycoprotein of ~95 kDa, also known as the beta 2 chair         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).         Rat anti Human CD18 antibody, clone YFC118.3 demonstrates strong reactivity with         leucocytes and is not reactive with platelets.	١,
Flow Cytometry	Use 5µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.	
References	<ol> <li>Bindon, C.I. <i>et al.</i> (1988) Importance of antigen specificity for complement-mediated lysis by monoclonal antibodies. <u>Eur J Immunol. 18 (10): 1507-14.</u></li> <li>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. <u>Tissue Antigens. 43 (3): 202-5.</u></li> <li>Mizuno, T. <i>et al.</i> (1997) cDNA cloning and chromosomal localization of the human telencephalin and its distinctive interaction with lymphocyte function-associated antigen<u>J Biol Chem. 272: 1156-63.</u></li> <li>Kupatt, C. <i>et al.</i> (1999) Tumor necrosis factor-alpha contributes to ischemia- and reperfusion-induced endothelial activation in isolated hearts. <u>Circ Res. 84: 392-400.</u></li> <li>Salvatierra, A. <i>et al.</i> (2001) Antithrombin III prevents early pulmonary dysfunction after the second sec</li></ol>	

lung transplantation in the dog. Circulation. 104: 2975-80.

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. <u>Blood. 98: 458-66.</u>
 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. <u>Scand J Immunol. 55: 61-9.</u>

8. Gonçalves, R. *et al.* (2005) A sensitive flow cytometric methodology for studying the binding of *L. chagasi* to canine peritoneal macrophages. <u>BMC Infect Dis. 5:39.</u>

9. 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. <u>J Thorac Cardiovasc Surg. 130: 1623-30.</u>

10. Lana, S. *et al.* (2006) Diagnosis of mediastinal masses in dogs by flow cytometry. <u>J</u> <u>Vet Intern Med. 20: 1161-5.</u>

11. 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. <u>Blood. 110: 877-85.</u>

12. Sampaio, W.M. *et al.* (2007) *In vitro* binding and survival assays of Leishmania parasites to peripherical blood monocytes and monocyte-derived macrophages isolated from dogs naturally and experimentally infected with *Leishmania chagasi*. <u>BMC Vet Res.</u> <u>3:11.</u>

13. 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. <u>J Hepatol. 51: 734-49</u>.

14. Waché, Y.J. *et al.* (2009) The mycotoxin deoxynivalenol inhibits the cell surface expression of activation markers in human macrophages. <u>Toxicology. 262: 239-44.</u>
 15. 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. <u>Vet</u> Immunol Immunopathol. 139: 271-6.

16. 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. <u>Vet Immunol Immunopathol. 141: 64-75.</u>

17. Canalli, A.A. *et al.* (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. <u>Haematologica. 96: 526-33.</u>

18. Zimmerman, K.L. *et al.* (2013) Leukocyte adhesion deficiency type I in a mixed-breed dog. <u>J Vet Diagn Invest. 25: 291-6.</u>

19. Levy, O. *et al.* (2015) Apolipoprotein E promotes subretinal mononuclear phagocyte survival and chronic inflammation in age-related macular degeneration. <u>EMBO Mol Med.</u> <u>pii: e201404524.</u>

Sutcliffe, J.E.S. *et al.* (2017) Changes in the extracellular matrix surrounding human chronic wounds revealed by 2-photon imaging. <u>Int Wound J. Jul 20 [Epub ahead of print].</u>
 Cremer, S.E. *et al.* (2019) Proteomic profiling of the thrombin-activated canine platelet secretome (CAPS). <u>PLoS One. 14 (11): e0224891.</u>

22. 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. <u>Vet Comp Oncol. 18 (3): 342-52.</u>

	23. Sheng, R. <i>et al.</i> (2023) Prognostic significance of CD25 ex noninvasive diagnosis of B-cell lymphoma treated with CHOP <u>Oncol. 21 (1): 28-35.</u>	
Further Reading	1. Marconato, L. (2013) The dog as a possible animal model f lymphoma: a review. <u>Hematol Oncol. 31: 1-9.</u>	or human non-Hodgkin
Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.	
Guarantee	12 months from date of despatch	
Acknowledgements	This product is covered by U.S. Patent No. 10,150,841 and re counterparts	lated U.S. and foreign
Health And Safety Information	Material Safety Datasheet documentation #20471 available at <a href="https://www.bio-rad-antibodies.com/SDS/MCA503SBB700">https://www.bio-rad-antibodies.com/SDS/MCA503SBB700</a> 20471	:
Regulatory	For research purposes only	

## **Related Products**

### **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
	Email: antibody_sales_us@bi	o-rad.com	Email: antibody_sales_uk@bio	-rad.com	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 'M421942:230815'

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