

## Datasheet: MCA503

<b>Description:</b>	RAT ANTI HUMAN CD18
<b>Specificity:</b>	CD18
<b>Other names:</b>	INTEGRIN BETA 2 CHAIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	YFC118.3
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	0.2 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/50 - 1/100
Immunohistology - Frozen (1)	▪			1/1000 - 1/5000
Immunohistology - Paraffin		▪		
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
Immunofluorescence	▪			

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.

**(1)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.**

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	Reacts with: Dog, Guinea Pig <b>N.B.</b> Antibody reactivity and working conditions may vary between species.
<b>Product Form</b>	Purified IgG - liquid
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Carrier Free</b>	Yes

<b>Approx. Protein Concentrations</b>	IgG concentration 1 mg/ml
<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 recognising 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.</p> <p>The main cellular reactivity of Rat anti Human CD18 antibody, clone YFC118.3 is a strong reactivity with Leucocytes (platelets negative).</p> <p>The CD18 molecule is the receptor for ICAM-1 and is thus important for cell adhesion.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>Histology Positive Control Tissue</b>	Human Tonsil
<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</li> </ol>

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<b>Storage</b>	Store at +4°C or at -20°C if preferred.
	This product should be stored undiluted.
	Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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<b>Shelf Life</b>	18 months from date of despatch.
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: 10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a>
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)

[DyLight®800](#)

Goat Anti Rat IgG (STAR73...) [RPE](#)  
Rabbit Anti Rat IgG (STAR21...) [HRP](#)  
Rabbit Anti Rat IgG (STAR17...) [FITC](#)  
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) [DyLight®649](#), [DyLight®800](#)  
Goat Anti Rat IgG (STAR131...) [Alk. Phos.](#), [Biotin](#)  
Goat Anti Rat IgG (STAR69...) [FITC](#)  
Goat Anti Rat IgG (STAR72...) [HRP](#)

## Recommended Negative Controls

[RAT IgG2b NEGATIVE CONTROL \(MCA6006GA\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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