

## Datasheet: MCA775

<b>Description:</b>	MOUSE ANTI RAT 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>	WT.3
<b>Isotype:</b>	IgG1
<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	▪			1/10 - 1/50
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

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.

<b>Target Species</b>	Rat
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<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>	FTL-43.
<b>RRID</b>	AB_2128469
<b>Fusion Partners</b>	Lymph node cells from an immunized BALB/c mouse were fused with cells of the PAI mouse myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Rat CD18 antibody, clone WT.3</b> reacts with the rat beta 2 integrin, which is designated CD18. The beta 2 integrin may be associated with the integrin alphaL, alpha<sup>X</sup> or alphaM subunits. CD18 is expressed by all leucocytes.</p> <p>Mouse anti Rat CD18 antibody has been shown to inhibit homotypic aggregation of PHA blasts. It also blocks binding of rat lymphocytes to purified rat ICAM-1.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Tamatani, T. &amp; Miyasaka, M. (1990) Identification of monoclonal antibodies reactive with the rat homolog of ICAM-1, and evidence for a differential involvement of ICAM-1 in the adherence of resting versus activated lymphocytes to high endothelial cells. <a href="#">Int Immunol. 2 (2): 165-71.</a></li> <li>2. Tamatani, T. <i>et al.</i> (1991) Characterization of the rat leukocyte integrin, CD11/CD18, by the use of LFA-1 subunit-specific monoclonal antibodies. <a href="#">Eur J Immunol. 21 (3): 627-33.</a></li> <li>3. Tamatani, T. <i>et al.</i> (1991) Molecular mechanisms underlying lymphocyte recirculation. II. Differential regulation of LFA-1 in the interaction between lymphocytes and high endothelial cells. <a href="#">Eur J Immunol. 21 (3): 855-8.</a></li> <li>4. Alvarez, A. <i>et al.</i> (2007) Gastric antisecretory drugs induce leukocyte-endothelial cell interactions through gastrin release and activation of CCK-2 receptors. <a href="#">J Pharmacol Exp Ther. 323. 406-413.</a></li> <li>5. Wu, J.C. <i>et al.</i> (1996) The relationship of adhesion molecules and leukocyte infiltration in chronic tubulointerstitial nephritis induced by puromycin aminonucleoside in Wistar rats. <a href="#">Clin Immunol Immunopathol. 79 (3): 229-35.</a></li> <li>6. Nicholls, S.M. <i>et al.</i> (2006) Differences in leukocyte phenotype and interferon-gamma expression in stroma and endothelium during corneal graft rejection. <a href="#">Exp Eye Res. 83 (2): 339-47.</a></li> <li>7. Ishida, S. <i>et al.</i> (2003) Leukocytes mediate retinal vascular remodeling during development and vaso-obliteration in disease. <a href="#">Nat Med. 9 (6): 781-8.</a></li> <li>8. Fabian, R.H. &amp; Kent, T.A. (1999) Superoxide anion production during reperfusion is reduced by an antineutrophil antibody after prolonged cerebral ischemia. <a href="#">Free Radic Biol Med. 26 (3-4): 355-61.</a></li> <li>9. Shen K <i>et al.</i> (1995) Circulating leukocyte counts, activation, and degranulation in Dahl hypertensive rats. <a href="#">Circ Res. 76 (2): 276-83.</a></li> <li>10. Nutile-McMenemy, N. <i>et al.</i> (2007) Minocycline decreases in vitro microglial motility, beta1-integrin, and Kv1.3 channel expression. <a href="#">J Neurochem. 103 (5): 2035-46.</a></li> </ol>

11. Martinelli, R. *et al.* (2009) ICAM-1-mediated endothelial nitric oxide synthase activation via calcium and AMP-activated protein kinase is required for transendothelial lymphocyte migration. [Mol Biol Cell. 20 \(3\): 995-1005.](#)
12. Herrmann, I.K. *et al.* (2015) Differentiating sepsis from non-infectious systemic inflammation based on microvesicle-bacteria aggregation. [Nanoscale. 7 \(32\): 13511-20.](#)
13. Gu, Y. *et al.* (2019) Defining the structural basis for human alloantibody binding to human leukocyte antigen allele HLA-A\*11:01. [Nat Commun. 10 \(1\): 893.](#)
14. Dragoni, S. *et al.* (2020) Endothelial Protease Activated Receptor 1 (PAR1) Signalling Is Required for Lymphocyte Transmigration across Brain Microvascular Endothelial Cells. [Cells. 9\(12\):2723.](#)

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**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA775>  
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**Regulatory** For research purposes only

## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)  
 Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
 Goat Anti Mouse IgG (STAR70...) [FITC](#)  
 Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)  
 Goat Anti Mouse IgG (STAR76...) [RPE](#)  
 Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)  
 Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
 Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
 Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@550](#),  
[DyLight@650](#), [DyLight@680](#), [DyLight@800](#),  
[FITC](#), [HRP](#)

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA1209\)](#)

<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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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
'M381890:210512'

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