

Datasheet: MCA775

Description:	MOUSE ANTI RAT CD18
Specificity:	CD18
Other names:	INTEGRIN BETA 2 CHAIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	WT.3
Isotype:	IgG1
Quantity:	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.

	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.

Target Species	Rat
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1 mg/ml
Immunogen	FTL-43.
RRID	AB_2128469
Fusion Partners	Lymph node cells from an immunized BALB/c mouse were fused with cells of the PAI mouse myeloma cell line.
Specificity	<p>Mouse anti Rat CD18 antibody, clone WT.3 reacts with the rat beta 2 integrin, which is designated CD18. The beta 2 integrin may be associated with the integrin alphaL, alpha^X 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>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Tamatani, T. & 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. Int Immunol. 2 (2): 165-71. 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. Eur J Immunol. 21 (3): 627-33. 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. Eur J Immunol. 21 (3): 855-8. 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. J Pharmacol Exp Ther. 323. 406-413. 5. Wu JC <i>et al.</i> (1996) The relationship of adhesion molecules and leukocyte infiltration in chronic tubulointerstitial nephritis induced by puromycin aminonucleoside in Wistar rats. Clin Immunol Immunopathol. 79 (3): 229-35. 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. Exp Eye Res. 83 (2): 339-47. 7. Ishida, S. <i>et al.</i> (2003) Leukocytes mediate retinal vascular remodeling during development and vaso-obliteration in disease. Nat Med. 9 (6): 781-8. 8. Fabian, R.H. & Kent, T.A. (1999) Superoxide anion production during reperfusion is reduced by an antineutrophil antibody after prolonged cerebral ischemia. Free Radic Biol Med. 26 (3-4): 355-61. 9. Shen K <i>et al.</i> (1995) Circulating leukocyte counts, activation, and degranulation in Dahl hypertensive rats. Circ Res. 76 (2): 276-83. 10. Nutile-McMenemy, N. <i>et al.</i> (2007) Minocycline decreases in vitro microglial motility, beta1-integrin, and Kv1.3 channel expression. J Neurochem. 103 (5): 2035-46.

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.](#)

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.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
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 \(MCA1209\)](#)

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
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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://www.bio-rad-antibodies.com/datasheets)
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