Datasheet: MCA775F

BATCH NUMBER 0514

Description:	MOUSE ANTI RAT CD18:FITC
Specificity:	CD18
Other names:	INTEGRIN BETA 2 CHAIN
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	WT.3
Isotype:	IgG1
Quantity:	0.1 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	▪			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

Rat

Product Form

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

Preparation

Purified IgG prepared by affinity chromatography on Protein A

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide

1% Bovine Serum Albumin

Approx. Protein Concentrations

IgG concentration 0.1 mg/ml

Immunogen	FTL-43.
RRID	AB_321338
Fusion Partners	Lymph node cells from an immunized BALB/c mouse were fused with cells of the PAI mouse myeloma cell line.
Specificity	**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. 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.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.

References

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. *et al.* (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. *et al.* (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. *et al.* (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 *et al.* (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. *et al.* (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. *et al.* (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 *et al.* (1995) Circulating leukocyte counts, activation, and degranulation in Dahl hypertensive rats. Circ Res. 76 (2): 276-83.
10. Nutile-McMenemy, N. *et al.* (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	Store at +4°C or at -20°C if preferred.
	This product should be stored undiluted.
	Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.
	Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA775F 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA1209F)

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M368963:200529'

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