

Datasheet: MCA619F

BATCH NUMBER 1607

Description:	MOUSE ANTI RAT CD11b:FITC
Specificity:	CD11b
Other names:	INTEGRIN ALPHA M CHAIN, MAC-1
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	ED8
Isotype:	IgG1
Quantity:	100 TESTS

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
Immunohistology - Frozen			▪	
Immunohistology - Paraffin		▪		

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 G from tissue culture supernatant		
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	Rat spleen cell homogenate with Freund's complete adjuvant.
RRID	AB_321303
Fusion Partners	Spleen cells from immunized BAL/B/c mice were fused with cells of the Sp2/0 Ag-14 myeloma cell line.
Specificity	Mouse anti Rat CD11b antibody, clone ED8 recognizes a membrane antigen on rat macrophages, monocytes, dendritic cells and granulocytes. It also recognizes small ramified microglia in the central nervous system. No other cell types are positive for ED8. The recognized antigen is a heterodimer consisting of ~160 and ~95 kDa, belonging to the family of adhesion molecules CD11b/CD18, also designated as Mac-1 antigen or CR3. Mouse anti Rat CD11b antibody, clones ED7 (MCA618R) and ED8 may recognize closely related epitopes on the same molecule. Both clones ED7 and ED8 induce homotypic aggregation of granulocytes (Drasković-Pavlović et al. 1999).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> Damoiseaux, J.G. <i>et al.</i> (1989) Heterogeneity of macrophages in the rat evidenced by variability in determinants: two new anti-rat macrophage antibodies against a heterodimer of 160 and 95 kDa (CD11/CD18). J Leukoc Biol. 46 (6): 556-64. de Groot, C.J. <i>et al.</i> (1988) Discrimination between different types of neuroglial cells in rat central nervous system using combined immuno- and enzyme-histochemical methods. Immunobiology. 178 (3): 177-90. Dijkstra, C.D. & Damoiseaux, J.G. (1993) Macrophage heterogeneity established by immunocytochemistry. Prog Histochem Cytochem. 27 (2): 1-65. Huitinga, I. <i>et al.</i> (1993) Treatment with anti-CR3 antibodies ED7 and ED8 suppresses experimental allergic encephalomyelitis in Lewis rats. Eur J Immunol. 23 (3): 709-15. Zilka, N. <i>et al.</i> (2009) Human misfolded truncated tau protein promotes activation of microglia and leukocyte infiltration in the transgenic rat model of tauopathy. J Neuroimmunol. 209 (1-2): 16-25. Drasković-Pavlović, B. <i>et al.</i> (1999) Differential effects of anti-rat CD11b monoclonal antibodies on granulocyte adhesiveness. Immunology. 96: 83-9. Dong, H. <i>et al.</i> (2014) Lithium ameliorates lipopolysaccharide-induced microglial activation via inhibition of toll-like receptor 4 expression by activating the PI3K/Akt/FoxO1 pathway. J Neuroinflammation. 11: 140. Nacka-Aleksić M <i>et al.</i> (2015) Sexual dimorphism in the aged rat CD4+ T lymphocyte-mediated immune response elicited by inoculation with spinal cord homogenate. Mech Ageing Dev. 152: 15-31. Stojić-Vukanić Z <i>et al.</i> (2015) Aging diminishes the resistance of AO rats to EAE: putative role of enhanced generation of GM-CSF Expressing CD4+ T cells in aged rats. Immun Ageing. 12: 16. Stojić-Vukanić, Z. <i>et al.</i> (2016) Estradiol enhances capacity of TLR-matured splenic dendritic cells to polarize CD4+ lymphocytes into IL-17/GM-CSF-producing cells <i>in vitro</i>. Int Immunopharmacol. 40: 244-53.

11. Pilipović, I. *et al.* (2020) Propranolol diminished severity of rat EAE by enhancing immunoregulatory/protective properties of spinal cord microglia. [Neurobiol Dis. 134: 104665.](#)
12. Nacka-Aleksić, M. *et al.* (2020) Sex as a confounding factor in the effects of ageing on rat lymph node t cell compartment. [Exp Gerontol. 142: 111140.](#)
13. Djuretić, J. *et al.* (2021) Infrared radiation from cage bedding moderates rat inflammatory and autoimmune responses in collagen-induced arthritis. [Sci Rep. 11 \(1\): 2882.](#)
14. Pilipović, I. *et al.* (2019) Noradrenaline modulates CD4+ T cell priming in rat experimental autoimmune encephalomyelitis: a role for the α_1 -adrenoceptor. [Immunol Res. 67 \(2-3\): 223-40.](#)
15. Anderson, L.E. *et al.* (2021) Injection of Micronized Human Amnion/Chorion Membrane Results in Increased Early Supraspinatus Muscle Regeneration in a Chronic Model of Rotator Cuff Tear. [Ann Biomed Eng. 49 \(12\): 3698-710.](#)
16. Anderson, L.E. *et al.* (2024) Bone Marrow Mobilization and Local Stromal Cell-Derived Factor-1 α Delivery Enhances Nascent Supraspinatus Muscle Fiber Growth. [Tissue Eng Part A. 30 \(1-2\): 45-60.](#)
17. Pilipović, I. *et al.* (2019) Propranolol Impairs Primary Immune Responses in Rat Experimental Autoimmune Encephalomyelitis. [Neuroimmunomodulation. 26 \(3\): 129-38.](#)
18. Bufan, B, *et al.* (2024) NMDA Receptor Antagonist Memantine Ameliorates Experimental Autoimmune Encephalomyelitis in Aged Rats. [Biomedicines 12, 717.](#)

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. This product is photosensitive and should be protected from light.

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/MCA619F>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA1209F\)](#)

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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