

Datasheet: MCA874F

BATCH NUMBER 1707

Description:	MOUSE ANTI HUMAN MACROPHAGES:FITC
Specificity:	MACROPHAGES/MONOCYTES/GRANULOCYTES
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	MAC387
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 (1)	-			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.

(1)Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm[™] (Product Code <u>BUF09</u>) for this purpose.

Target Species	Human			
Species Cross Reactivity	monkey, Rhesus N.B. Antibody reactivity is derive	se, Pig, Dog, Rabbit, Babo Monkey, Goat, Fallow dee activity and working condit ed from testing within our I nications from the originaton.	r, Pygmy hippopotam ions may vary betwee aboratories, peer-revi	us, Mink, Marmoset n species. Cross ewed publications or
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 prep	ared by affinity chromatog	raphy on Protein G fro	om tissue culture

supernatant

Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide
Stabilisers	1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	Human monocytes.
External Database	
Links	UniProt:
	P06702 Related reagents
	Entrez Gene:
	6280 S100A9 Related reagents
Synonyms	CAGB, CFAG, MRP14
RRID	AB_323431
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.
Specificity	Mouse anti Human macrophages, clone MAC387 recognizes the L1 or Calprotectin molecule, an intracytoplasmic antigen comprised of a 12 kDa alpha chain and a 14 kDa beta chain. Although originally described as binding to epitopes common to both the alpha and beta chains (Flavell et al. 1987) subsequent studies indicate that the antibody detects an epitope exclusively expressed on the beta chain (Goebeler et al. 1994) demonstrated by immunofluorescent and western blotting on both naturally expressing and transfected targets. In addition Mouse anti Human macrophages, clone MAC387 detects the beta chain in complex with the alpha.
	The antigen recognized by Mouse anti Human macrophages, clone MAC387 is expressed by granulocytes, monocytes and by tissue macrophages. Variable results have been reported for staining brain macrophages and microglia. The epitope recognized appears to be well conserved and the antibody is routinely used for the detection of myeloid cells in a wide range of species.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
References	 Brandtzaeg, P. et al. (1992) The leucocyte protein L1 (calprotectin): usefulness as an immunohistochemical marker antigen and putative biological function. <u>Histopathology. 21: 191-196.</u> Gutierrez, M. et al. (1999) The detection of CD2+, CD4+, CD8+, and WC1+ T lymphocytes, B cells and macrophages in fixed and paraffin embedded bovine tissue

- using a range of antigen recovery and signal amplification techniques. <u>Vet Immunol Immunopathol</u>. 71 (3-4): 321-34.
- 3. Ramsay, A.D. *et al.* (1991) Phenotypic analysis of malignant lymphoma in simian immunodeficiency virus infection using anti-human antibodies. J Pathol. 164 (4): 321-8.
- 4. Christgau, M. *et al.* (1998) Characterization of immunocompetent cells in the diseased canine periodontium. J Histochem Cytochem. 46 (12): 1443-54.
- 5. Pérez, J. et al. (1999) Immunohistochemical study of the inflammatory infiltrate associated with equine squamous cell carcinoma. J Comp Pathol. 121 (4): 385-97.
- 6. Obert, L.A. & Hoover, E.A. (2002) Early pathogenesis of transmucosal feline immunodeficiency virus infection. J Virol. 76 (12): 6311-22.
- 7. Malik, N. *et al.* (1998) Apoptosis and cell proliferation after porcine coronary angioplasty. <u>Circulation</u>. 98 (16): 1657-65.
- 8. Bagavant, H. *et al.* (2002) Induction and immunohistology of autoimmune ovarian disease in cynomolgus macaques (*Macaca fascicularis*). Am J Pathol. 160 (1): 141-9.
- 9. Sanchez, J. *et al.* (2011) Microscopical and immunological features of tuberculoid granulomata and cavitary pulmonary tuberculosis in naturally infected goats. <u>J Comp</u> Pathol. 145 (2-3): 107-17.
- 10. Vranckx, K. *et al.* (2012) Vaccination reduces macrophage infiltration in bronchus-associated lymphoid tissue in pigs infected with a highly virulent Mycoplasma hyopneumoniae strain. <u>BMC Vet Res. 8: 24.</u>
- 11. Campuzano, O. *et al.* (2012) Arrhythmogenic right ventricular cardiomyopathy: severe structural alterations are associated with inflammation. <u>J Clin Pathol. 65 (12): 1077-83.</u>
- 12. García-Jiménez, W.L. (2012) Histological and immunohistochemical characterisation of *Mycobacterium bovis* induced granulomas in naturally infected fallow deer (*Dama dama*). Vet Immunol Immunopathol. 149: 66-75.
- 13. Carrade, D.D. *et al.* (2012) Comparative Analysis of the Immunomodulatory Properties of Equine Adult-Derived Mesenchymal Stem Cells. Cell Med. 4 (1): 1-11.
- 14. Masure, D. *et al.* (2013) A Role for Eosinophils in the Intestinal Immunity against Infective *Ascaris suum* Larvae. <u>PLoS Negl Trop Dis. 2013 Mar;7(3): e2138.</u>
- 15. Tellez, A. *et al.* (2014) Experimental evaluation of efficacy and healing response of everolimus-eluting stents in the familial hypercholesterolemic swine model: a comparative study of bioabsorbable versus durable polymer stent platforms. <u>Coron Artery Dis. 25 (3):</u> 198-207.
- 16. Collin, N. *et al.* (2009) Sand fly salivary proteins induce strong cellular immunity in a natural reservoir of visceral leishmaniasis with adverse consequences for *Leishmania*. PLoS Pathog. 5(5):e1000441.
- 17. McCurdy, P. *et al.* (2014) Acute lymphoblastic leukemia in a pygmy hippopotamus (*Hexaprotodon liberiensis*). <u>J Zoo Wildl Med. 45 (4): 906-10.</u>
- 18. Marcaccini, A. *et al.* (2008) Pseudorabies virus infection in mink: a host-specific pathogenesis. <u>Vet Immunol Immunopathol. 124 (3-4): 264-73.</u>
- 19. Romero-Palomo, F. *et al.* (2015) Immunopathologic Changes in the Thymus of Calves Pre-infected with BVDV and Challenged with BHV-1. <u>Transbound Emerg Dis. Aug 25.</u> [Epub ahead of print]
- 20. Rossi, C.N. *et al.* (2016) *In situ* Cutaneous cellular immune response in dogs naturally infected by visceral leishmaniasis. Rev Inst Med Trop Sao Paulo. 58: .
- 21. Vrolyk V *et al.* (2016) Lung Inflammation Associated With Clinical Acute Necrotizing Pancreatitis in Dogs. <u>Vet Pathol. May 11. pii: 0300985816646432</u>. [Epub ahead of print]

- 22. Nelson, M. *et al.* (2014) Comparative experimental subcutaneous glanders and melioidosis in the common marmoset (*Callithrix jacchus*). <u>Int J Exp Pathol. 95 (6): 378-91.</u>
- 23. Amarilla, S.P. *et al.* (2016) Thymic depletion of lymphocytes is associated with the virulence of PRRSV-1 strains. <u>Vet Microbiol. 188: 47-58.</u>
- 24. García-Jiménez, W.L. *et al.* (2013) Immunopathology of granulomas produced by *Mycobacterium bovis* in naturally infected wild boar. <u>Vet Immunol Immunopathol. 156</u> (1-2): 54-63.
- 25. Pilling, D. *et al.* (2015) The long pentraxin PTX3 promotes fibrocyte differentiation. PLoS One. 10 (3): e0119709.
- 26. Santana, C.H. *et al.* (2016) Relationship Between the Inflammatory Infiltrate and the Degree of Differentiation of the Canine Cutaneous Cell Carcinoma. <u>Vet Anim Sci. Oct 10</u> [Epub ahead of print]
- 27. Isling, L.K. *et al.* (2010) Pyelonephritis in slaughter pigs and sows: morphological characterization and aspects of pathogenesis and aetiology. Acta Vet Scand. 52: 48.

Further Reading

- 1. Burk, J. *et al.* (2013) Equine cellular therapy--from stall to bench to bedside? <u>Cytometry</u> A. 83 (1): 103-13.
- 2. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54.

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	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA874F 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA928F)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

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

North & South Tel: +1 800 265 7376 America Fax: +1 919 878 3751 Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739

Europe

Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_us@bio-rad.com

Email: antibody_sales_uk@bio-rad.com

'M341187:190109'

Email: antibody_sales_de@bio-rad.com

Printed on 15 Mar 2024

© 2024 Bio-Rad Laboratories Inc | Legal | Imprint