

Datasheet: MCA874FT

BATCH NUMBER 1014

Description:	MOUSE ANTI HUMAN MACROPHAGES:FITC
Specificity:	MACROPHAGES/MONOCYTES/GRANULOCYTES
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	MAC387
Isotype:	IgG1
Quantity:	25 µg

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 [BUF09](#)) for this purpose.

Target Species

Human

Species Cross Reactivity

Reacts with: Horse, Pig, Dog, Rabbit, Baboon, Bovine, Guinea Pig, Rat, Cat, Cynomolgus monkey, Rhesus Monkey, Goat, Fallow deer, Pygmy hippopotamus, Mink, Marmoset
N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

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 Human monocytes.

External Database Links

UniProt:
[P06702](#) [Related reagents](#)

Entrez Gene:
[6280](#) S100A9 [Related reagents](#)

Synonyms CAGB, CFAG, MRP14

RRID AB_1102747

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 1×10^6 cells in 100ul.

References

1. Ueland, T. *et al.* (2009) Dickkopf-1 enhances inflammatory interaction between platelets and endothelial cells and shows increased expression in atherosclerosis. [Arterioscler Thromb Vasc Biol. 29: 1228-34](#)
2. Brandtzaeg, P. *et al.* (1992) The leucocyte protein L1 (calprotectin): usefulness as an immunohistochemical marker antigen and putative biological function. [Histopathology. 21:](#)

[191-196.](#)

3. 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. [Vet Immunol Immunopathol. 71 \(3-4\): 321-34.](#)
4. 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.](#)
5. Christgau, M. *et al.* (1998) Characterization of immunocompetent cells in the diseased canine periodontium. [J Histochem Cytochem. 46 \(12\): 1443-54.](#)
6. Pérez, J. *et al.* (1999) Immunohistochemical study of the inflammatory infiltrate associated with equine squamous cell carcinoma. [J Comp Pathol. 121 \(4\): 385-97.](#)
7. Nanney, L.B. *et al.* (2008) Calreticulin enhances porcine wound repair by diverse biological effects. [Am J Pathol. 173: 610-30.](#)
8. Poncellet, L. *et al.* (2008) Detection of antigenic heterogeneity in feline coronavirus nucleocapsid in feline pyogranulomatous meningoencephalitis. [Vet Pathol. 45: 140-53.](#)
9. Sethi, R.S. *et al.* (2010) Immunolocalization of pulmonary intravascular macrophages, TLR4, TLR9 and IL-8 in normal and *Pasteurella multocida*-infected lungs of water buffalo (*Bubalus bubalis*). [J Comp Pathol. 144: 135-44.](#)
10. Sanchez, J. *et al.* (2011) Microscopical and immunological features of tuberculoid granulomata and cavitary pulmonary tuberculosis in naturally infected goats. [J Comp Pathol. 145 \(2-3\): 107-17.](#)
11. 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.](#)
12. Vranckx, K. *et al.* (2012) Vaccination reduces macrophage infiltration in bronchus-associated lymphoid tissue in pigs infected with a highly virulent *Mycoplasma hyopneumoniae* strain. [BMC Vet Res. 8: 24.](#)
13. Campuzano, O. *et al.* (2012) Arrhythmogenic right ventricular cardiomyopathy: severe structural alterations are associated with inflammation. [J Clin Pathol. 65 \(12\): 1077-83.](#)
14. 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.](#)
15. Santana, C.H. *et al.* (2016) Relationship Between the Inflammatory Infiltrate and the Degree of Differentiation of the Canine Cutaneous Cell Carcinoma. [Vet Anim Sci. Oct 10 \[Epub ahead of print\]](#)
16. Masure, D. *et al.* (2013) A Role for Eosinophils in the Intestinal Immunity against Infective *Ascaris suum* Larvae. [PLoS Negl Trop Dis. 2013 Mar;7\(3\): e2138.](#)
17. 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. [Coron Artery Dis. 25 \(3\): 198-207.](#)
18. 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.](#)
19. McCurdy, P. *et al.* (2014) Acute lymphoblastic leukemia in a pygmy hippopotamus (*Hexaprotodon liberiensis*). [J Zoo Wildl Med. 45 \(4\): 906-10.](#)
20. Marcaccini, A. *et al.* (2008) Pseudorabies virus infection in mink: a host-specific pathogenesis. [Vet Immunol Immunopathol. 124 \(3-4\): 264-73.](#)

21. Romero-Palomo, F. *et al.* (2015) Immunopathologic Changes in the Thymus of Calves Pre-infected with BVDV and Challenged with BHV-1. [Transbound Emerg Dis. Aug 25. \[Epub ahead of print\]](#)
22. 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: .](#)
23. Vrolyk V *et al.* (2016) Lung Inflammation Associated With Clinical Acute Necrotizing Pancreatitis in Dogs. [Vet Pathol. May 11. pii: 0300985816646432. \[Epub ahead of print\]](#)
24. Nelson, M. *et al.* (2014) Comparative experimental subcutaneous glanders and melioidosis in the common marmoset (*Callithrix jacchus*). [Int J Exp Pathol. 95 \(6\): 378-91.](#)
25. Amarilla, S.P. *et al.* (2016) Thymic depletion of lymphocytes is associated with the virulence of PRRSV-1 strains. [Vet Microbiol. 188: 47-58.](#)
26. García-Jiménez, W.L. *et al.* (2013) Immunopathology of granulomas produced by *Mycobacterium bovis* in naturally infected wild boar. [Vet Immunol Immunopathol. 156 \(1-2\): 54-63.](#)
27. Pilling, D. *et al.* (2015) The long pentraxin PTX3 promotes fibrocyte differentiation. [PLoS One. 10 \(3\): e0119709.](#)
28. Zhao, L. *et al.* (2020) Reducing macrophage numbers alleviates temporomandibular joint ankylosis. [Cell Tissue Res. 379 \(3\): 521-36.](#)

Further Reading	<ol style="list-style-type: none"> 1. Burk, J. <i>et al.</i> (2013) Equine cellular therapy--from stall to bench to bedside? Cytometry 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	<p>Store at +4°C or at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
----------------	--

Guarantee	12 months from date of despatch
------------------	---------------------------------

Health And Safety Information	<p>Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA874FT</p> <p>10041</p>
--------------------------------------	--

Regulatory	For research purposes only
-------------------	----------------------------

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

North & South Tel: +1 800 265 7376

America 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

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

'M369050:200529'

Printed on 15 Mar 2024

© 2024 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)