Datasheet: MCA874PE

Description:	MOUSE ANTI HUMAN MACROPHAGES:RPE
Specificity:	MACROPHAGES/MONOCYTES
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	MAC387
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 (1)	▪			Neat - 1/5

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.

Product Form

Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution

Reconstitute with 1.0ml distilled water

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578

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 (NaN_3)
1% Bovine Serum Albumin

Immunogen

Human monocytes.

External Database Links	**UniProt:** P06702 Related reagents **Entrez Gene:** 6280 S100A9 Related reagents
Synonyms	CAGB, CFAG, MRP14
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 cellds in a wide range of species.
Flow Cytometry	Use 10ul of the suggested working dilution to label $1x10^6$ cells in 100ul.
References	1. Brandtzaeg, P. *et al*. (1992) The leucocyte protein L1 (calprotectin): usefulness as an immunohistochemical marker antigen and putative biological function. Histopathology. 21: 191-196. 2. 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. 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. Circulation. 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. J Comp 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. BMC Vet Res. 8: 24. 11. Campuzano, O. *et al.* (2012) Arrhythmogenic right ventricular cardiomyopathy: severe structural alterations are associated with inflammation. J Clin Pathol. 65 (12): 1077-83. 12. García-Jiménez, W.L. (2012) Histological and immunohistochemical characterisation of *Mycobacterium bovis* induced granulomas in naturally infected fallow deer (*Dama dama*). Vet

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Further Reading	1. Burk, J. *et al.* (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	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	12 months from date of reconstitution.
Health And Safety Information	Material Safety Datasheet documentation #10075 available at: 10075: https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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