

Datasheet: MCA874EL

Description:	MOUSE ANTI HUMAN MACROPHAGES:Low Endotoxin
Specificity:	MACROPHAGES/MONOCYTES/GRANULOCYTES
Other names:	CALPROTECTIN
Format:	Low Endotoxin
Product Type:	Monoclonal Antibody
Clone:	MAC387
Isotype:	lgG1
Quantity:	0.5 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 <u>www.bio-rad-antibodies.com/protocols</u>.

		Yes	No	Not Determined	Suggested Dilution	
	Flow Cytometry (1)	•			1/50 - 1/200	
	Immunohistology - Frozen				1/100 - 1/200	
	Immunohistology - Paraffin (2)	-			1/100 - 1/200	
	ELISA			•		
	Immunoprecipitation					
	Western Blotting			•		
	necessarily exclude its us a guide only. It is recomm system using appropriate (1) Membrane permeab Leucoperm (Product Co	 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 permeabilization is required for this application. The use of Leucoperm (Product Code <u>BUF09</u>) is recommended for this purpose. (2)This product requires protein digestion pre-treatment of paraffin sections e.g. trypsin or pronase. 				
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 - liquid		
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	None present		
Carrier Free	Yes		
Endotoxin Level	<0.01EU/ug		
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml		
Immunogen	Human monocytes.		
External Database Links	UniProt: <u>P06702</u> <u>Related reagents</u> Entrez Gene: <u>6280</u> S100A9 <u>Related reagents</u>		
Synonyms	CAGB, CFAG, MRP14		
RRID	AB_1605222		
Fusion Partners	Spleen cells from immunized 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 (<u>Flavell <i>et al.</i> 1987</u>) subsequent evidence indicates that the antibody detects an epitope exclusively expressed on the beta chain (<u>Goebeler <i>et al.</i> 1994</u>) 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.		
	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.				
Histology Positive Control Tissue	Human Spleen				
References	 Burudi, E.M. <i>et al.</i> (2002) Regulation of indoleamine 2,3-dioxygenase expression in simian immunodeficiency virus-infected monkey brains. <u>J Virol. 76</u>: 12233-41. Ueland, T. <i>et al.</i> (2009) Dickkopf-1 enhances inflammatory interaction between platelets and endothelial cells and shows increased expression in atherosclerosis. <u>Arterioscler Throm Vasc Biol. 29</u>: 1228-34 Brandtzaeg, P. <i>et al.</i> (1992) The leucocyte protein L1 (calprotectin): usefulness as an immunohistochemical marker antigen and putative biological function. <u>Histopathology. 21</u>: 191-6. Gutierrez, M. <i>et al.</i> (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>Vel Immunol Immunopathol. 71 (3-4): 321-34</u>. Ramsay, A.D. <i>et al.</i> (1991) Phenotypic analysis of malignant lymphoma in simian immunodeficiency virus infection using anti-human antibodies. <u>J Pathol. 164 (4): 321-8</u>. Christgau, M. <i>et al.</i> (1998) Characterization of immunocompetent cells in the diseased canine periodontium. <u>J Histochem Cytochem. 46 (12): 1443-54</u>. Pérez, J. <i>et al.</i> (1999) Immunohistochemical study of the inflammatory infiltrate associated with equine squamous cell carcinoma. <u>J Comp Pathol. 121 (4): 385-97</u>. Nanney, L.B. <i>et al.</i> (2008) Detection of antigenic heterogeneity in feline coronavirus nucleocapsid in feline pyogranulomatous meningoencephalitis. <u>Vet Pathol. 45: 140-53</u>. Serhi, R.S. <i>et al.</i> (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. Sanchez, J. <i>et al.</i> (2010) Pethonesopical and immunological features of tuberculoid granulomata and cavitary pulmonary tuberculosis in naturally infected goats. <u>J Comp Pathol. 145 (2-3); 107-17</u>.<!--</td-->				
	 Ueland, T. <i>et al.</i> (2009) Dickkopf-1 enhances inflammatory interaction between platelets and endothelial cells and shows increased expression in atherosclerosis. <u>Arterioscler Thromb Vasc Biol.</u> 29: 1228-34 Brandtzaeg, P. <i>et al.</i> (1992) The leucocyte protein L1 (calprotectin): usefulness as an immunohistochemical marker antigen and putative biological function. <u>Histopathology</u>. 21: 191-6. Gutierrez, M. <i>et al.</i> (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. Ramsay, A.D. <i>et al.</i> (1991) Phenotypic analysis of malignant lymphoma in simian immunodeficiency virus infection using anti-human antibodies. <u>J Pathol.</u> 164 (4): 321-8. Christgau, M. <i>et al.</i> (1998) Characterization of immunocompetent cells in the diseased canine periodontium. <u>J Histochem Cytochem.</u> 46 (12): 1443-54. Pérez, J. <i>et al.</i> (1999) Immunohistochemical study of the inflammatory infiltrate associated with equine squamous cell carcinoma. <u>J Comp Pathol.</u> 121 (4): 385-97. Nanney, L.B. <i>et al.</i> (2008) Detection of antigenic heterogeneity in feline coronavirus nucleocapsid in feline pyogranulomatous meningoencephalitis. <u>Vet Pathol.</u> 45: 140-53. Sethi, R.S. <i>et al.</i> (2010) Immunolocalization of pulmonary intravascular macrophages, TLR4, TLR9 and IL-8 in normal and Pasteurella multocida-infected lungs of water buffalo (Bubalus bubalis). <u>J Comp Pathol.</u> 144: 135-44. Sanchez, J. <i>et al.</i> (2011) Microscopical and immunological features of tuberculoid granulomata and cavitary pulmonary tuberculosis in naturally infected goats. <u>J Comp Pathol.</u> 145 (2-3): 107-17. Ising, L.K. <i>et al.</i> (2012) Vaccination reduces macrophage infiltration in bronchusassociated lymphoid issue in pigs infected with a highly virulent <i>Mycoplasma hy</i>				

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Further Reading	1. Burk, J. et al. (2013) Equine cellular therapyfrom stall to bench to bedside? Cytometry
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Storage	Store at -20°C only.
-	This product should be stored undiluted.
	Storage in frost-free freezers is not recommended. 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	Material Safety Datasheet documentation #10162 available at:
Information	https://www.bio-rad-antibodies.com/SDS/MCA874EL
	10162
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) RPE

Goat Anti Mouse IgG IgA IgM (STAR87) <u>HRP</u>			
Goat Anti Mouse IgG (STAR76)	RPE		
Goat Anti Mouse IgG (STAR70)	<u>FITC</u>		
Rabbit Anti Mouse IgG (STAR13)	HRP		
Goat Anti Mouse IgG (Fc) (STAR120)	FITC, HRP		
Rabbit Anti Mouse IgG (STAR9)	<u>FITC</u>		
Goat Anti Mouse IgG (STAR77)	HRP		
Goat Anti Mouse IgG (H/L) (STAR117)	Alk. Phos., DyLight®488, DyLight®550,		
	DyLight®650, DyLight®680, DyLight®800,		
	<u>FITC</u> , <u>HRP</u>		

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:Low Endotoxin (MCA928EL)

North & South	Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
America	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@	bio-rad.com	Email: antibody_sales_uk@bic	o-rad.com	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 'M404373:220822'

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