

Datasheet: MCA1820F BATCH NUMBER 162259

Description:	MOUSE ANTI BOVINE INTERLEUKIN-4:FITC		
Specificity:	IL-4		
Format:	FITC		
Product Type:	Monoclonal Antibody		
Clone:	CC303		
Isotype:	lgG2a		
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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	•			

Where this product 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 product 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.

Target Species	Bovine				
Species Cross Reactivity	<b>N.B.</b> Antibody reactivity is derive	activity and working condition our lead from testing within our leading to the originate of the control of the	at, Dolphin, Mink, Fin Whale ons may vary between species. Cr aboratories, peer-reviewed publica ors. Please refer to references indic	tions 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 prepared supernatant	ared by affinity chromatog	aphy on Protein A from tissue cult	ure	

<b>Buffer Solution</b>	Phosphate buffered saline			
Preservative Stabilisers	0.09% sodium azide (NaN <sub>3</sub> ) 1% bovine serum albumin			
Approx. Protein Concentrations	IgG concentration 0.1mg/ml			
External Database Links	UniProt: P30367 Related reagents  Entrez Gene: 280824 IL4 Related reagents			
RRID	AB_10964404			
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.			
Specificity	Mouse anti Bovine Interleukin-4 antibody, clone CC303 recognizes bovine interleukin 4			
Flow Cytometry	Use 10µl of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100µl			
References	1. Pedersen, L.G. <i>et al.</i> (2002) Identification of monoclonal antibodies that cross-react with cytokines from different animal species. Vet Immunol Immunopathol. 88 (3-4): 111-22.  2. Aasted, B. <i>et al.</i> (2002) Cytokine profiles in peripheral blood mononuclear cells and lymph node cells from piglets infected in utero with porcine reproductive and respiratory syndrome virus. Clin Diagn Lab Immunol. 9 (6): 1229-34.  3. Jensen, P.V. <i>et al.</i> (2003) Cytokine profiles in adult mink infected with Aleutian mink disease parvovirus. J Virol. 77: 7444-51.  4. Dean, G.S. <i>et al.</i> (2005) Minimum infective dose of <i>Mycobacterium bovis</i> in cattle. Infect Immun. 73 (10): 6467-71.  5. Hamza, E. <i>et al.</i> (2007) Modulation of allergy incidence in icelandic horses is associated with a change in IL-4-producing T cells. Int Arch Allergy Immunol. 144: 325-37.  6. Taubert A <i>et al.</i> (2008) Antigen-induced cytokine production in lymphocytes of <i>Eimeria bovis</i> primary and challenge infected calves. Vet Immunol Immunopathol. 126 (3-4): 309-20.  7. Rutigliano, J.A. <i>et al.</i> (2008) Screening monoclonal antibodies for cross-reactivity in the ferret model of influenza infection. J Immunol Methods. 336: 71-7.  8. Araújo, M.S. <i>et al.</i> (2009) T-cell-derived cytokines, nitric oxide production by peripheral blood monocytes and seric anti-Leishmania (Leishmania) chagasi IgG subclass patterns following immunization against canine visceral leishmaniasis using Leishvaccine and Leishmune. Vaccine. 27 (7): 1008-17.  9. Papadogiannakis, E.I. <i>et al.</i> (2009) Determination of intracellular cytokines IFN-gamma and IL-4 in canine T lymphocytes by flow cytometry following whole-blood culture. Can J Vet Res. 73: 137-43.  10. Martel, C.J. & Aasted, B. (2009) Characterization of antibodies against ferret			

immunoglobulins, cytokines and CD markers. <u>Vet Immunol Immunopathol. 132:109-15.</u>
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- 14. Fellman, C.L. *et al.* (2011) Cyclosporine A affects the in vitro expression of T cell activation-related molecules and cytokines in dogs. <u>Vet Immunol Immunopathol. 140:</u> 175-80.
- 15. Yang, J. *et al.* (2012) Comparison of worm development and host immune responses in natural hosts of *Schistosoma japonicum*, yellow cattle and water buffalo. <u>BMC Vet Res.</u> 8: 25.
- 16. Geherin, S.A. *et al.* (2013) Ovine skin-recirculating γδ T cells express IFN-γ and IL-17 and exit tissue independently of CCR7. Vet Immunol Immunopathol. 155 (1-2): 87-97.
- 17. Costa-Pereira, C. *et al.* (2015) One-year timeline kinetics of cytokine-mediated cellular immunity in dogs vaccinated against visceral leishmaniasis. BMC Vet Res. 11 (1): 92.
- 18. Moreira, M.L. *et al.* (2016) Vaccination against canine leishmaniosis increases the phagocytic activity, nitric oxide production and expression of cell activation/migration molecules in neutrophils and monocytes. Vet Parasitol. 220: 33-45.
- 19. Aguiar-Soares, R.D.O. *et al.* (2020) Phase I and II Clinical Trial Comparing the LBSap, Leishmune<sup>®</sup>, and Leish-Tec<sup>®</sup> Vaccines against Canine Visceral Leishmaniasis. <u>Vaccines</u> (Basel). 8 (4)Nov 17 [Epub ahead of print].
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- 22. Matralis, D.T. *et al.* (2023) Intracellular IFN-γ and IL-4 levels of CD4 + and CD8 + T cells in the peripheral blood of naturally infected (*Leishmania infantum*) symptomatic dogs before and following a 4-week treatment with miltefosine and allopurinol: a double-blinded, controlled and cross-sectional study. <u>Acta Vet Scand. 65 (1): 2.</u>
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#### **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** Material Safety Datasheet documentation #10041 available at:

Information https://www.bio-rad-antibodies.com/SDS/MCA1820F

10041

**Regulatory** For research purposes only

### **Related Products**

# **Recommended Negative Controls**

MOUSE IgG2a NEGATIVE CONTROL:FITC (MCA929F)

 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

 $\textbf{Email: antibody\_sales\_us@bio-rad.com} \\ \textbf{Email: antibody\_sales\_uk@bio-rad.com} \\ \textbf{Email: antibody\_sales\_uk@b$ 

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M411643:221104'

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