

## Datasheet: MCA1820F

<b>Description:</b>	MOUSE ANTI BOVINE INTERLEUKIN-4:FITC
<b>Specificity:</b>	IL-4
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	CC303
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	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. Bio-Rad recommend the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.**

<b>Target Species</b>	Bovine		
<b>Species Cross Reactivity</b>	Reacts with: Dog, Pig, Sheep, Mustelid, Goat, Dolphin, Mink, Fin Whale, Horse <b>N.B.</b> Antibody reactivity and working conditions may vary between species.		
<b>Product Form</b>	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	FITC	490	525
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative</b>	0.09% Sodium Azide (NaN <sub>3</sub> )		
<b>Stabilisers</b>	1% Bovine Serum Albumin		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1mg/ml		
<b>External Database Links</b>	<b>UniProt:</b>		

**Entrez Gene:**

[280824](#)   IL4   [Related reagents](#)

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<b>Fusion Partners</b>	Spleen cells from immunized BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.
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<b>Specificity</b>	<b>Mouse anti Bovine Interleukin-4 antibody, clone CC303</b> recognizes bovine interleukin 4
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<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul.
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<b>References</b>	<ol style="list-style-type: none"><li>1. Pedersen, L.G. <i>et al.</i> (2002) Identification of monoclonal antibodies that cross-react with cytokines from different animal species. <a href="#">Vet Immunol Immunopathol. 88 (3-4): 111-22.</a></li><li>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. <a href="#">Clin Diagn Lab Immunol. 9 (6): 1229-34.</a></li><li>3. Nielsen, L. <i>et al.</i> (2009) Lymphotropism and host responses during acute wild-type canine distemper virus infections in a highly susceptible natural host. <a href="#">J Gen Virol. 90: 2157-65.</a></li><li>4. Jaber, J.R. <i>et al.</i> (2010) Cross-reactivity of anti-human, anti-porcine and anti-bovine cytokine antibodies with cetacean tissues. <a href="#">J Comp Pathol. 143: 45-51.</a></li><li>5. Martel, C.J. &amp; Aasted, B. (2009) Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. <a href="#">Vet Immunol Immunopathol. 132:109-15.</a></li><li>6. Fellman, C.L. <i>et al.</i> (2011) Cyclosporine A affects the in vitro expression of T cell activation-related molecules and cytokines in dogs. <a href="#">Vet Immunol Immunopathol. 140: 175-80.</a></li><li>7. Araújo, M.S. <i>et al.</i> (2011) Immunological changes in canine peripheral blood leukocytes triggered by immunization with first or second generation vaccines against canine visceral leishmaniasis. <a href="#">Vet Immunol Immunopathol. 141: 64-75.</a></li><li>8. Jensen, P.V. <i>et al.</i> (2003) Cytokine profiles in adult mink infected with Aleutian mink disease parvovirus. <a href="#">J Virol. 77: 7444-51.</a></li><li>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. <a href="#">Can J Vet Res. 73: 137-43.</a></li><li>10. Rutigliano, J.A. <i>et al.</i> (2008) Screening monoclonal antibodies for cross-reactivity in the ferret model of influenza infection. <a href="#">J Immunol Methods. 336: 71-7.</a></li><li>11. Wagner, B. <i>et al.</i> (2008) Characterization of monoclonal antibodies to equine interleukin-10 and detection of T regulatory 1 cells in horses. <a href="#">Vet Immunol Immunopathol. 122: 57-64.</a></li><li>12. 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. <a href="#">Int Arch Allergy Immunol. 144: 325-37.</a></li><li>13. Costa-Pereira, C. <i>et al.</i> (2015) One-year timeline kinetics of cytokine-mediated cellular immunity in dogs vaccinated against visceral leishmaniasis. <a href="#">BMC Vet Res. 11 (1): 92.</a></li><li>14. Dean, G.S. <i>et al.</i> (2005) Minimum infective dose of <i>Mycobacterium bovis</i> in cattle. <a href="#">Infect Immun. 73 (10): 6467-71.</a></li><li>15. 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. <a href="#">Vaccine. 27 (7): 1008-17.</a></li><li>16. Yang, J. <i>et al.</i> (2012) Comparison of worm development and host immune responses in natural hosts of <i>Schistosoma japonicum</i>, yellow cattle and water buffalo. <a href="#">BMC Vet Res. 8: 25.</a></li><li>17. Taubert A <i>et al.</i> (2008) Antigen-induced cytokine production in lymphocytes of <i>Eimeria bovis</i> primary and challenge infected calves. <a href="#">Vet Immunol Immunopathol. 126 (3-4): 309-20.</a></li><li>18. Geherin, S.A. <i>et al.</i> (2013) Ovine skin-recirculating <math>\gamma\delta</math> T cells express IFN-<math>\gamma</math> and IL-17 and exit</li></ol>
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tissue independently of CCR7. [Vet Immunol Immunopathol. 155 \(1-2\): 87-97.](#)

19. 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 [Veterinary Parasitology. 15 Feb \[Epub ahead of print\]](#)

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**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.

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**Shelf Life**

18 months from date of despatch.

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**Health And Safety Information**

Material Safety Datasheet documentation #10041 available at:  
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:FITC \(MCA929F\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

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