



## Datasheet: MCA1820PE

**BATCH NUMBER 170200**

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

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			Neat - 1/5

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 [BUF09](#)) is recommended for this purpose.**

#### Target Species

Bovine

#### Species Cross Reactivity

Reacts with: Dog, Pig, Sheep, Mustelid, Goat, Dolphin, Mink, Fin Whale

**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 R. Phycoerythrin (RPE) - lyophilized

#### Reconstitution

Reconstitute with 1 ml distilled water

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

<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 5% sucrose
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P30367</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">280824</a>    IL4    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_324011
<b>Fusion Partners</b>	Spleen cells from immunized BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.
<b>Specificity</b>	<b>Mouse anti Bovine Interleukin-4 antibody, clone CC303</b> recognizes bovine interleukin 4
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100µl
<b>References</b>	<ol style="list-style-type: none"> <li>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>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>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>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>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>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>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>Araújo, M.S. <i>et al.</i> (2009) T-cell-derived cytokines, nitric oxide production by peripheral blood monocytes and seric anti-Leishmania (<i>Leishmania</i>) chagasi IgG subclass patterns following immunization against canine visceral leishmaniasis using Leishvaccine and Leishmune. <a href="#">Vaccine. 27 (7): 1008-17.</a></li> <li>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> </ol>

10. Martel, C.J. & Aasted, B. (2009) Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. [Vet Immunol Immunopathol. 132:109-15.](#)
11. Nielsen, L. *et al.* (2009) Lymphotropism and host responses during acute wild-type canine distemper virus infections in a highly susceptible natural host. [J Gen Virol. 90: 2157-65.](#)
12. Jaber, J.R. *et al.* (2010) Cross-reactivity of anti-human, anti-porcine and anti-bovine cytokine antibodies with cetacean tissues. [J Comp Pathol. 143: 45-51.](#)
13. Araújo, M.S. *et al.* (2011) Immunological changes in canine peripheral blood leukocytes triggered by immunization with first or second generation vaccines against canine visceral leishmaniasis. [Vet Immunol Immunopathol. 141: 64-75.](#)
14. Fellman, C.L. *et al.* (2011) Cyclosporine A affects the in vitro expression of T cell activation-related molecules and cytokines in dogs. [Vet Immunol Immunopathol. 140: 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. [BMC Vet Res. 8: 25.](#)
16. Geherin, S.A. *et al.* (2013) Ovine skin-recirculating  $\gamma\delta$  T cells express IFN- $\gamma$  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. [Vaccines \(Basel\). 8 \(4\)Nov 17 \[Epub ahead of print\].](#)
20. Villa-Mancera, A. *et al.* (2021) Phage display-based vaccine with cathepsin L and excretory-secretory products mimotopes of *Fasciola hepatica*. induces protective cellular and humoral immune responses in sheep. [Vet Parasitol. 289: 109340.](#)
21. Blanco, C.F. *et al.* (2021) Semi-stable production of bovine IL-4 and GM-CSF in the mammalian episomal expression system [Journal of Veterinary Research. 65, Aug 19 \[Epub ahead of print\]](#)
22. Matralis, D.T. *et al.* (2023) Intracellular IFN- $\gamma$  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. [Acta Vet Scand. 65 \(1\): 2.](#)
23. Dawson, H.D. *et al.* (2020) Porcine cytokines, chemokines and growth factors: 2019 update. [Res Vet Sci. 131: 266-300.](#)
24. Vieira, J.F.P. *et al.* (2022) CD4(+) T-lymphocytes from asymptomatic dogs infected with *Leishmania infantum* are able to activate macrophages for higher leishmanicidal ability in an *in vitro* co-culture experiment. [Mol Immunol. 151: 61-9.](#)

---

**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.

---

<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20487 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1820PE">https://www.bio-rad-antibodies.com/SDS/MCA1820PE</a>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:RPE \(MCA929PE\)](#)

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)  
'M433955:250120'

**Printed on 30 Apr 2026**