

## Datasheet: MCA1820

**BATCH NUMBER 1608**

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

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			1/50 - 1/100
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting		▪		

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/postive controls.

**(1)Membrane permeabilization is required for this application. Bio-Rad recommend the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.**

### Target Species

Bovine

### Species Cross Reactivity

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

<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 Stabilisers</b>	0.09% Sodium Azide
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0mg/ml
<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_2127033
<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 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul.
<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) Lymphtropism 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> </ol>

9. Papadogiannakis, E.I. *et al.* (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. Rutigliano, J.A. *et al.* (2008) Screening monoclonal antibodies for cross-reactivity in the ferret model of influenza infection. [J Immunol Methods. 336: 71-7.](#)
11. Taubert A *et al.* (2008) Antigen-induced cytokine production in lymphocytes of *Eimeria bovis* primary and challenge infected calves. [Vet Immunol Immunopathol. 126 \(3-4\): 309-20.](#)
12. Hamza, E. *et al.* (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.](#)
13. 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.](#)
14. Dean, G.S. *et al.* (2005) Minimum infective dose of *Mycobacterium bovis* in cattle. [Infect Immun. 73 \(10\): 6467-71.](#)
15. Araújo, M.S. *et al.* (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.](#)
16. 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.](#)
17. 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.](#)
18. 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.](#)
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 \[Epub ahead of print\].](#)

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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. 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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**Guarantee**

12 months from date of despatch

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**Health And Safety Information**

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1820>  
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**Regulatory**

For research purposes only

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**Related Products**

## Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>

## Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
'M365747:200529'

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