

Datasheet: MCA1820A647

Description:	MOUSE ANTI BOVINE INTERLEUKIN-4:Alexa Fluor® 647
Specificity:	IL-4
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	CC303
Isotype:	IgG2a
Quantity:	100 TESTS/1ml

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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			1/10 - 1/25

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 Alexa Fluor® 647 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®647	650	665

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide (NaN ₃)
Stabilisers	1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
External Database Links	<p>UniProt: P30367 Related reagents</p> <p>Entrez Gene: 280824 IL4 Related reagents</p>
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 ⁶ cells in 100µl
References	<ol style="list-style-type: none"> 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. 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. Jensen, P.V. <i>et al.</i> (2003) Cytokine profiles in adult mink infected with Aleutian mink disease parvovirus. J Virol. 77: 7444-51. Dean, G.S. <i>et al.</i> (2005) Minimum infective dose of <i>Mycobacterium bovis</i> in cattle. Infect Immun. 73 (10): 6467-71. 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. 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. 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. 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. Vaccine. 27 (7): 1008-17. 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. Martel, C.J. & Aasted, B. (2009) Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. Vet Immunol Immunopathol. 132:109-15. 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. [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- 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 leishmaniasis 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[®], and Leish-Tec[®] 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- 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. [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.](#)

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.

Guarantee 12 months from date of despatch

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Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1820A647>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

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

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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
'M426210:231205'

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