

Datasheet: MCA1820A647

BATCH NUMBER 173935

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	UniProt: P30367 Related reagents Entrez Gene: 280824 IL4 Related reagents
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 is a monoclonal antibody that recognizes bovine interleukin-4 (IL-4), also known as B-cell stimulatory factor 1. The antibody shows reported cross-reactivity with IL-4 from several other species, including dog, pig, sheep, mustelid, goat, dolphin, mink and fin whale (Pedersen <i>et al.</i> 2002 and Jaber <i>et al.</i> 2010). Antibody reactivity and optimal working conditions may vary between species. This antibody has been validated for use in ELISA and for intracellular staining of cells for flow cytometry. Interleukin-4 is a glycosylated polypeptide cytokine expressed by several immune cell types, including T cells, granulocytes and mast cells. IL-4 plays a key role in the regulation of bovine immune responses and is one of the defining cytokines of the Th2 lymphocyte phenotype. It contributes to immune regulation through activation of epithelial cells and by influencing cell proliferation and apoptosis.
Flow Cytometry	Use 10µl of the suggested working dilution to label 1x10 ⁶ 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</i>

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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.
Guarantee	12 months from date of despatch
Acknowledgements	This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchased product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA1820A647
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

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

Product inquiries: 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](https://www.bio-rad-antibodies.com/datasheets)
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