

Datasheet: MCA2110

Description:	MOUSE ANTI BOVINE INTERLEUKIN-10
Specificity:	IL-10
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	CC318
Isotype:	IgG2b
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	■			
Immunohistology - Frozen			■	
Immunohistology - Paraffin			■	
ELISA	■			5ug/ml - 10ug/ml
Immunoprecipitation			■	
Western Blotting			■	
ELISpot	■			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

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

Target Species	Bovine
Species Cross Reactivity	Reacts with: Horse, Sheep N.B. Antibody reactivity and working conditions may vary between species.
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml

Immunogen	Plasmid cDNA encoding bovine IL-10.
External Database Links	UniProt: P43480 Related reagents Entrez Gene: 281246 IL10 Related reagents
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the mouse SP2/0 myeloma cell line
Specificity	Mouse anti Bovine Interleukin-10 antibody, clone CC318 recognizes bovine IL-10. Mouse anti Bovine Interleukin-10 antibody, clone CC318 has been shown not to inhibit the biological activity of IL-10.
ELISA	This reagent may be used as a capture antibody in a sandwich ELISA assay for bovine IL-10 in combination with MCA2111B as detection reagent, see Bannerman, D.D.et al.
References	1. Kwong, L.S. <i>et al.</i> (2002) Development of an ELISA for bovine IL-10. Vet Immunol Immunopathol. 85 (3-4): 213-23. 2. Scandurra, G.M. <i>et al.</i> (2009) Assessment of live candidate vaccines for paratuberculosis in animal models and macrophages. Infect Immun. 78: 1383-9. 3. Weiss DJ <i>et al.</i> (2008) Bovine monocyte TLR2 receptors differentially regulate the intracellular fate of Mycobacterium avium subsp. paratuberculosis and Mycobacterium avium subsp. avium. J Leukoc Biol. 83 (1): 48-55. 4. 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. 5. Wenz, J.R. <i>et al.</i> (2010) Factors associated with concentrations of select cytokine and acute phase proteins in dairy cows with naturally occurring clinical mastitis. J Dairy Sci. 93: 2458-70. 6. Rinaldi, M. <i>et al</i> (2010) A sentinel function for teat tissues in dairy cows: dominant innate immune response elements define early response to <i>E. coli</i> mastitis. Funct Integr Genomics. 10: 21-38. 7. Parker, D.G. <i>et al.</i> (2010) Lentivirus-mediated gene transfer of interleukin 10 to the ovine and human cornea. Clin Experiment Ophthalmol. 38: 405-13. 8. Ferret-Bernard, S. <i>et al.</i> (2011) Mesenteric lymph node cells from neonates present a prominent IL-12 response to CpG oligodeoxynucleotide via an IL-15 feedback loop of amplification. Vet Res. 42:19. 9. Bannerman, D.D. <i>et al.</i> (2004) <i>Escherichia coli</i> and <i>Staphylococcus aureus</i> elicit differential innate immune responses following intramammary infection. Clin Diagn Lab Immunol. 11: 463-72. 10. Coad, M. <i>et al.</i> (2010) Repeat tuberculin skin testing leads to desensitisation in naturally infected tuberculous cattle which is associated with elevated interleukin-10 and decreased interleukin-1 beta responses. Vet Res. 41: 14. 11. den Hartog, G. <i>et al.</i> (2011) Modulation of human immune responses by bovine interleukin-10. PLoSone 6: e18188 12. Ikebuchi, R. <i>et al.</i> (2013) Blockade of bovine PD-1 increases T cell function and inhibits bovine leukemia virus expression in B cells <i>in vitro</i>. Vet Res. 44: 59. 13. Ferret-Bernard, S. <i>et al.</i> (2010) Cellular and molecular mechanisms underlying the strong neonatal IL-12 response of lamb mesenteric lymph node cells to R-848. PLoS One. 5: e13705. 14. Jones, G.J. <i>et al.</i> (2010) Simultaneous measurement of antigen-stimulated interleukin-1 beta and gamma interferon production enhances test sensitivity for the detection of Mycobacterium bovis infection in cattle. Clin Vaccine Immunol. 17: 1946-51.

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16. Olivier, M. *et al.* (2009) Capacities of migrating CD1b+ lymph dendritic cells to present Salmonella antigens to naive T cells. [PLoS One. 7: e30430.](#)
17. Shu, D. *et al.* (2011) Diverse cytokine profile from mesenteric lymph node cells of cull cows severely affected with Johne's disease. [Clin Vaccine Immunol. 18: 1467-76.](#)
18. Redondo, E. *et al.* (2014) Induction of interleukin-8 and interleukin-12 in neonatal ovine lung following experimental inoculation of bovine respiratory syncytial virus. [J Comp Pathol. 150 \(4\): 434-48.](#)
19. Dooley LM *et al.* (2015) Effect of mesenchymal precursor cells on the systemic inflammatory response and endothelial dysfunction in an ovine model of collagen-induced arthritis. [PLoS One. 10 \(5\): e0124144.](#)
20. Rainard, P. *et al.* (2016) Innate and Adaptive Immunity Synergize to Trigger Inflammation in the Mammary Gland. [PLoS One. 11 \(4\): e0154172.](#)
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23. Pomeroy B *et al.* (2016) Impact of *in vitro* treatments of physiological levels of estradiol and progesterone observed in pregnancy on bovine monocyte-derived dendritic cell differentiation and maturation. [Vet Immunol Immunopathol. 182: 37-42.](#)

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.

Shelf Life

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE

Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR8...) [DyLight®800](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Human Anti Mouse IgG2b (HCA038...) [FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL \(MCA691\)](#)

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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