

Datasheet: MCA2111EL

Description:	MOUSE ANTI BOVINE INTERLEUKIN-10:Low Endotoxin
Specificity:	IL-10
Format:	Low Endotoxin
Product Type:	Monoclonal Antibody
Clone:	CC320
Isotype:	IgG1
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			■	
Functional Assays	■			

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, Goat 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	None present
Carrier Free	Yes
Endotoxin Level	<0.01 EU/ug

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 CC320 recognizes bovine IL-10. Mouse anti Bovine Interleukin-10 antibody, clone CC320 has been shown to neutralize the activity of bovine IL-10 as measured by the inhibition of the inhibitory activity of IL-10 on IFN gamma synthesis (Buza et al. 2004).
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. Buza JJ <i>et al.</i> (2004) Neutralization of interleukin-10 significantly enhances gamma interferon expression in peripheral blood by stimulation with Johnin purified protein derivative and by infection with <i>Mycobacterium avium</i> subsp. <i>paratuberculosis</i> in experimentally infected cattle with paratuberculosis. Infect Immun. 72 (4): 2425-8. 3. Scandurra, G.M. <i>et al.</i> (2010) Assessment of live candidate vaccines for paratuberculosis in animal models and macrophages. Infect Immun. 78 (3): 1383-9. 4. Weiss DJ <i>et al.</i> (2008) Bovine monocyte TLR2 receptors differentially regulate the intracellular fate of <i>Mycobacterium avium</i> subsp. <i>paratuberculosis</i> and <i>Mycobacterium avium</i> subsp. <i>avium</i>. J Leukoc Biol. 83 (1): 48-55. 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. 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. 7. 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. 8. 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. 9. 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. 10. Lybeck, K.R. <i>et al.</i> (2009) Neutralization of interleukin-10 from CD14(+) monocytes enhances gamma interferon production in peripheral blood mononuclear cells from <i>Mycobacterium avium</i> subsp. <i>paratuberculosis</i>-infected goats. Clin Vaccine Immunol. 16 (7): 1003-11. 11. 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. 12. Souza, M. <i>et al.</i> (2008) Pathogenesis and immune responses in gnotobiotic calves after infection with the genogroup II.4-HS66 strain of human norovirus. J Virol. 82: 1777-86. 13. Ma&347;lanka T <i>et al.</i> (2012) The presence of CD25 on bovine WC1+ gammadelta T cells is positively correlated with their production of IL-10 and TGF-beta, but not IFN-gamma. Pol J Vet Sci.

[15 \(1\): 11-20.](#)

14. Lybeck, K.R. *et al.* (2012) Intestinal Strictures, Fibrous Adhesions and High Local Interleukin-10 Levels in Goats Infected Naturally with *Mycobacterium avium* subsp. *paratuberculosis*. [J Comp Pathol. 148: 157-72.](#)

15. Dooley, L.M. *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.](#)

16. Rainard, P. *et al.* (2016) Innate and Adaptive Immunity Synergize to Trigger Inflammation in the Mammary Gland. [PLoS One. 11 \(4\): e0154172.](#)

17. Cassady-Cain, R.L. *et al.* (2017) Inhibition of Antigen-Specific and Nonspecific Stimulation of Bovine T and B Cells by Lymphostatin from Attaching and Effacing *Escherichia coli*. [Infect Immun. 85 \(2\): pii: e00845-16. \[epub ahead of print\]](#)

18. 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.](#)

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Storage

Store at -20°C only.

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 #10162 available at: 10162: <https://www.bio-rad-antibodies.com/uploads/MSDS/10162.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 IgG1 (HCA036...)	HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:Low Endotoxin (MCA928EL)

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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