

Datasheet: MCA2111EL

BATCH NUMBER 162892

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. 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

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
RRID	AB_2264769
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	 Kwong, L.S. et al. (2002) Development of an ELISA for bovine IL-10. <u>Vet Immunol Immunopathol</u>. 85 (3-4): 213-23. Buza JJ et al. (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. paratuberculosis in experimentally infected cattle with paratuberculosis. <u>Infect Immun</u>. 72 (4): 2425-8. Scandurra, G.M. et al. (2010) Assessment of live candidate vaccines for paratuberculosis in animal models and macrophages. <u>Infect Immun</u>. 78 (3): 1383-9. Weiss DJ et al. (2008) Bovine monocyte TLR2 receptors differentially regulate the intracellular fate of <i>Mycobacterium avium</i> subsp. paratuberculosis and <i>Mycobacterium avium</i> subsp. avium. <u>J Leukoc Biol</u>. 83 (1): 48-55. Hamza, E. et al. (2007) Modulation of allergy incidence in icelandic horses is associated with a change in IL-4-producing T cells. <u>Int Arch Allergy Immunol</u>. 144: 325-37. Wenz, J.R. et al. (2010) Factors associated with concentrations of select cytokine and

- acute phase proteins in dairy cows with naturally occurring clinical mastitis. <u>J Dairy Sci.</u> 93: 2458-70.
- 7. Rinaldi, M. *et al* (2010) A sentinel function for teat tissues in dairy cows: dominant innate immune response elements define early response to *E. coli* mastitis. <u>Funct Integr</u> Genomics. 10: 21-38.
- 8. Parker, D.G. *et al.* (2010) Lentivirus-mediated gene transfer of interleukin 10 to the ovine and human cornea. <u>Clin Experiment Ophthalmol. 38: 405-13.</u>
- 9. Ferret-Bernard, S. *et al.* (2011) Mesenteric lymph node cells from neonates present a prominent IL-12 response to CpG oligodeoxynucleotide via an IL-15 feedback loop of amplification. <u>Vet Res. 42:19.</u>
- 10. Lybeck, K.R. *et al.* (2009) Neutralization of interleukin-10 from CD14(+) monocytes enhances gamma interferon production in peripheral blood mononuclear cells from *Mycobacterium avium* subsp. *paratuberculosis*-infected goats. Clin Vaccine Immunol. 16 (7): 1003-11.
- 11. Ferret-Bernard, S. *et al.* (2010) Cellular and molecular mechanisms underlying the strong neonatal IL-12 response of lamb mesenteric lymph node cells to R-848. <u>PLoS One.</u> 5: e13705.
- 12. Souza, M. *et al.* (2008) Pathogenesis and immune responses in gnotobiotic calves after infection with the genogroup II.4-HS66 strain of human norovirus. <u>J Virol. 82:</u> 1777-86.
- 13. Ma&347;lanka T *et al.* (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. <u>Infect Immun. 85 (2)Jan 26 [Epub ahead of print].</u>
- 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. <u>Vet Immunol Immunopathol.</u> 182: 37-42.
- 19. Pomeroy, B. *et al.* (2015) Monocyte-derived dendritic cells from late gestation cows have an impaired ability to mature in response to *E. coli* stimulation in a receptor and cytokine-mediated fashion. <u>Vet Immunol Immunopathol. 167 (1-2): 22-9.</u>
- 20. Davidson, J.O. *et al.* (2021) Window of opportunity for human amnion epithelial stem cells to attenuate astrogliosis after umbilical cord occlusion in preterm fetal sheep. <u>Stem Cells Transl Med.</u> 10 (3): 427-40.
- 21. Borghesi, J. *et al.* (2020) Effects of doxorubicin associated with amniotic membrane stem cells in the treatment of canine inflammatory breast carcinoma (IPC-366) cells. <u>BMC Vet Res. 16 (1): 353.</u>
- 22. Galinsky, R. et al. (2020) Tumor necrosis factor inhibition attenuates white matter

- gliosis after systemic inflammation in preterm fetal sheep. <u>J Neuroinflammation</u>. 17 (1): 92.
- 23. Westover, A. *et al.* (2017) Effect of Human Amnion Epithelial Cells on the Acute Inflammatory Response in Fetal Sheep. Front Physiol. 8: 871.
- 24. Rodrigues, V. *et al.* (2017) Development of a bead-based multiplexed assay for simultaneous quantification of five bovine cytokines by flow cytometry. <u>Cytometry A. 91</u> (9): 901-7.
- 25. Jimbo, S. *et al.* (2019) Natural and inducible regulatory B cells are widely distributed in ovine lymphoid tissues. <u>Vet Immunol Immunopathol.</u> 211: 44-8.
- 26. Stabel, J.R. & Bannantine, J.P. (2019) Divergent Antigen-Specific Cellular Immune Responses during Asymptomatic Subclinical and Clinical States of Disease in Cows Naturally Infected with *Mycobacterium avium*. subsp. *paratuberculosis*. <u>Infect Immun</u>. 88(1):e00650-19.
- 27. Stabel, J.R. *et al.* (2021) Comparative cellular immune responses in calves after infection with *Mycobacterium avium.* subsp. *paratuberculosis.*, *M. avium.* subsp. *avium.*, *M. kansasii*.i and *M. bovis.*. <u>Vet Immunol Immunopathol. 237: 110268.</u>
- 28. Ciliberti, M.G. *et al.* (2020) Nexus Between Immune Responses and Oxidative Stress: The Role of Dietary Hydrolyzed Lignin in *ex vivo* Bovine Peripheral Blood Mononuclear Cell Response. Front Vet Sci. 7: 9.
- 29. Ciliberti, M.G. *et al.* (2022) Green extraction of bioactive compounds from wine lees and their bio-responses on immune modulation using in vitro sheep model. <u>J Dairy Sci. Mar 17 [Epub ahead of print].</u>

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.

Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10162 available at: https://www.bio-rad-antibodies.com/SDS/MCA2111EL 10162
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) RPE

Goat Anti Mouse IgG IgA IgM (STAR87...) HRP

Goat Anti Mouse IgG (STAR76...) RPE

Goat Anti Mouse IgG (STAR70...) FITC

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

Rabbit Anti Mouse IgG (STAR9...) FITC

Goat Anti Mouse IgG (STAR77...) HRP

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

Rabbit Anti Mouse IgG (STAR13...) HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:Low Endotoxin (MCA928EL)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M366200:200529'

Printed on 04 Mar 2024

© 2024 Bio-Rad Laboratories Inc | Legal | Imprint