Datasheet: MCA2111B

BATCH NUMBER 159428

Description:	MOUSE ANTI BOVINE INTERLEUKIN-10:Biotin
Specificity:	IL-10
Format:	Biotin
Product Type:	Monoclonal Antibody
Clone:	CC320
Isotype:	IgG1
Quantity:	0.25 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
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			2ug/ml - 5ug/ml
Immunoprecipitation			▪	
Western Blotting			▪	

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.

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 conjugated to Biotin - 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
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_2125237
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).
ELISA	This biotin conjugate may be used as detection reagent in a sandwich ELISA assay for bovine IL-10 with MCA2110 as capture reagent, see Bannerman, D.D.*et al.*
References	1. Kwong, L.S. *et al.* (2002) Development of an ELISA for bovine IL-10. Vet Immunol Immunopathol. 85 (3-4): 213-23. 2. 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 *Mycobacterium avium* subsp. *paratuberculosis* in experimentally infected cattle with paratuberculosis. Infect Immun. 72 (4): 2425-8. 3. Scandurra, G.M. *et al.* (2010) Assessment of live candidate vaccines for paratuberculosis in animal models and macrophages. Infect Immun. 78 (3): 1383-9. 4. Weiss DJ *et al.* (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. 5. Hamza, E. *et al.* (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. *et al.* (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. *et al* (2010) A sentinel function for teat tissues in dairy cows: dominant innate immune response elements define early response to *E. coli* mastitis. Funct Integr Genomics. 10: 21-38. 8. Parker, D.G. *et al.* (2010) Lentivirus-mediated gene transfer of interleukin 10 to the

ovine and human cornea. Clin Experiment Ophthalmol. 38: 405-13.
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. Vet Res. 42:19.
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. PLoS One. 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. J Virol. 82: 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. Infect Immun. 85 (2)Jan 26 [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.
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. Vet Immunol Immunopathol. 167 (1-2): 22-9.
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. Stem Cells Transl Med. 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. BMC Vet Res. 16 (1): 353.
22. Galinsky, R. *et al.* (2020) Tumor necrosis factor inhibition attenuates white matter gliosis after systemic inflammation in preterm fetal sheep. J Neuroinflammation. 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. Cytometry A. 91 (9): 901-7.

25. Jimbo, S. *et al.* (2019) Natural and inducible regulatory B cells are widely distributed in ovine lymphoid tissues. Vet Immunol Immunopathol. 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*. Infect Immun. 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.*. Vet Immunol Immunopathol. 237: 110268.
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. J Dairy Sci. Mar 17 [Epub ahead of print].

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. This product is photosensitive and should be protected from light.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2111B 10040
Regulatory	For research purposes only

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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M385097:210513'

Printed on 19 Mar 2025