

Datasheet: MCA2173B

BATCH NUMBER 166136

Description:	MOUSE ANTI BOVINE INTERLEUKIN-12/23:Biotin
Specificity:	IL-12 / IL-23
Format:	Biotin
Product Type:	Monoclonal Antibody
Clone:	CC326
Isotype:	IgG2b
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	■			5ug/ml
Immunoprecipitation			■	

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.

Target Species	Bovine
Species Cross Reactivity	<p>Reacts with: Sheep, Human</p> <p>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.</p>
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 (NaN ₃)
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Recombinant bovine IL-12.
External Database Links	<p>UniProt:</p> <p>P46282 Related reagents</p> <p>P54349 Related reagents</p> <p>Entrez Gene:</p> <p>281857 IL12B Related reagents</p> <p>281856 IL12A Related reagents</p>
RRID	AB_324111
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-12/23 antibody, clone CC326 recognizes the p40 subunit of bovine interleukin-12. The p40 subunit is also known as IL-12B and can form a heterodimer with either IL-12A or IL-23A. Mouse anti Bovine Interleukin-12/23 antibody, clone CC326 has been shown to block the biological activity of bovine IL-12.
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells of 100µl
ELISA	Biotin conjugated Mouse anti Bovine interleukin-12/23 antibody, clone CC326 may be used as a detection reagent in a sandwich ELISA assay using MCA1782EL as capture reagent (Bannerman et al. 2004).
References	<ol style="list-style-type: none"> Stephens, S.A. <i>et al.</i> (2003) Differences in cytokine synthesis by the sub-populations of dendritic cells from afferent lymph. Immunology. 110: 48-57. 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. 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. 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. 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. Contreras, V. <i>et al.</i> (2010) Existence of CD8α-like dendritic cells with a conserved

functional specialization and a common molecular signature in distant mammalian species. [J Immunol. 185: 3313-25.](#)

7. 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.](#)

8. 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.](#)

9. Verhelst, D. *et al.* (2014) Parasite distribution and associated immune response during the acute phase of *Toxoplasma gondii* infection in sheep. [BMC Vet Res.10: 293.](#)

10. Beechler, B.R. *et al.* (2015) Enemies and turncoats: bovine tuberculosis exposes pathogenic potential of Rift Valley fever virus in a common host, African buffalo (*Syncerus caffer*). [Proc Biol Sci. 282 \(1805\) pii: 20142942.](#)

11. Rutigliano, H.M. *et al.* (2016) Trophoblast Major Histocompatibility Complex Class I Expression Is Associated with Immune-Mediated Rejection of Bovine Fetuses Produced by Cloning. [Biol Reprod. 95 \(2\): 39.](#)

12. Stabel, J.R. & Bannantine, J.P. (2021) Reduced tissue colonization of *Mycobacterium avium* subsp. *paratuberculosis* in neonatal calves vaccinated with a cocktail of recombinant proteins. [Vaccine. 39 \(23\): 3131-40.](#)

13. 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.](#)

14. 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*. and *M. bovis*.. [Vet Immunol Immunopathol. 237: 110268.](#)

15. 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.](#)

16. Stabel, J.R. *et al.* (2020) Comparison of Sheep, Goats, and Calves as Infection Models for *Mycobacterium avium* subsp. *paratuberculosis*. [Vet Immunol Immunopathol. 225: 110060.](#)

17. Ihedioha, O. *et al.* (2020) Poor stimulation of bovine dendritic cells by *Mycobacterium bovis* culture supernatant and surface extract is associated with decreased activation of ERK and NF-κB and higher expression of SOCS1 and 3. [Innate Immun. 26 \(6\): 537-546.](#)

Storage	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
Guarantee	12 months from date of despatch
Health And Safety Information	<p>Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2173B</p> <p>10040</p>
Regulatory	For research purposes only

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

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