

Datasheet: MCA1782EL

BATCH NUMBER 1612

Description:	MOUSE ANTI BOVINE INTERLEUKIN-12/23:Low Endotoxin
Specificity:	IL-12 / IL-23
Format:	Low Endotoxin
Product Type:	Monoclonal Antibody
Clone:	CC301
Isotype:	IgG2a
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)	▪			1/10
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			8ug/ml
Immunoprecipitation			▪	
Western Blotting	▪			1/50 - 1/100
Functional Assays	▪			1/100
ELISpot	▪			

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

(1)Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.

Target Species	Bovine
Species Cross Reactivity	<p>Reacts with: Human, Sheep, African Buffalo</p> <p>Does not react with: Mouse</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 - 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	Recombinant bovine IL-12.
External Database Links	<p>UniProt:</p> <p>P54349 Related reagents</p> <p>P46282 Related reagents</p> <p>Entrez Gene:</p> <p>281856 IL12A Related reagents</p> <p>281857 IL12B Related reagents</p>
RRID	AB_616909
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.
Specificity	<p>Mouse anti Bovine Interleukin-12/23 antibody, clone CC301 recognizes the p40 subunit of bovine interleukin-12, and binds to both the free subunit and the intact heterodimer. The p40 subunit is also known as IL-12B and can form a heterodimer with either IL-12A or IL-23A.</p> <p>Mouse anti Bovine Interleukin-12/23 antibody, clone CC301 may be used as a capture antibody in an ELISA in combination with biotinylated Mouse anti Bovine Interleukin-12/23 antibody, clone CC326 (MCA2173B) as a detection reagent.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
ELISA	This antibody may be used as a capture antibody in a sandwich ELISA in combination with biotinylated clone CC326 (MCA2173B) as detection reagent, see Bannerman, D.D. et al.
References	1. Hope, J.C. <i>et al.</i> (2002) Development of detection methods for ruminant interleukin

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2. 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.](#)
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4. 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.](#)
5. Contreras, V. *et al.* (2010) Existence of CD8 α -like dendritic cells with a conserved functional specialization and a common molecular signature in distant mammalian species. [J Immunol. 185: 3313-25.](#)
6. Bannerman, D.D. *et al.* (2004) *Escherichia coli* and *Staphylococcus aureus* elicit differential innate immune responses following intramammary infection. [Clin Diagn Lab Immunol. 11: 463-72.](#)
7. Davis, T.L. and Pate, J.L. (2007) Bovine luteal cells stimulate proliferation of major histocompatibility nonrestricted gamma delta T cells. [Biol Reprod. 77: 914-22.](#)
8. Ferret-Bernard, S. (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.](#)
9. Shoda, L.K. *et al.* (2001) DNA from protozoan parasites *Babesia bovis*, *Trypanosoma cruzi*, and *T. brucei* is mitogenic for B lymphocytes and stimulates macrophage expression of interleukin-12, tumor necrosis factor alpha, and nitric oxide. [Infect Immun. 69: 2162-71.](#)
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12. Beechler BR *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 \(1805\): .](#)
13. 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.](#)
14. 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. May 06 \[Epub ahead of print\].](#)
15. 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.](#)
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17. 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.](#)

18. Tavalire, H.F. *et al.* (2019) Risk alleles for tuberculosis infection associate with reduced immune reactivity in a wild mammalian host. [Proc Biol Sci. 286 \(1907\): 20190914.](#)

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/MCA1782EL>
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](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (STAR77...) [HRP](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:Low Endotoxin \(MCA929EL\)](#)

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