Datasheet: MCA2173Z

Description:	MOUSE ANTI BOVINE INTERLEUKIN-12/23:Preservative Free
Specificity:	IL-12 / IL-23
Format:	Preservative Free
Product Type:	Monoclonal Antibody
Clone:	CC326
Isotype:	IgG2b
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)	▪			1/1000
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			1/100 - 1/1000
Immunoprecipitation			▪	
Western Blotting			▪	
Functional Assays	▪			1/100

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.

(1) **Membrane permeabilization is required for this application. The use of Leucoperm (Product Code BUF09) is recommended for this purpose.**

Target Species

Bovine

Species Cross Reactivity

Reacts with: Sheep, Human

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
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Recombinant bovine IL-12.
External Database Links	**UniProt:** P46282 Related reagents P54349 Related reagents **Entrez Gene:** 281857 IL12B Related reagents 281856 IL12A Related reagents
RRID	AB_323763
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.
References	1. Stephens, S.A. *et al.* (2003) Differences in cytokine synthesis by the sub-populations of dendritic cells from afferent lymph. Immunology. 110: 48-57. 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. 3. 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. 4. 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. 5. 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.

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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	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/MCA2173Z 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 IgG2b NEGATIVE CONTROL:Preservative Free (MCA691XZ)

North & South America
Tel: +1 800 265 7376
Fax: +1 919 878 3751
Email: antibody_sales_us@bio-rad.com

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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

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