

## Datasheet: MCA2173Z BATCH NUMBER 1707

Description:	MOUSE ANTI BOVINE INTERLEUKIN-12/23:Preservative Free
Specificity:	IL-12 / IL-23
Format:	Preservative Free
Product Type:	Monoclonal Antibody
Clone:	CC326
Isotype:	lgG2b
Quantity:	0.5 mg

# **Product Details**

Applications	This product has been re	ported to	work in th	ne following applicatio	ns. This information is		
	derived from testing withi	•		• • • •			
	communications from the originators. Please refer to references indicated for further						
	information. For general protocol recommendations, please visit <u>www.bio-</u>						
	• •		ecommen	idations, please visit <u>v</u>	<u>vwvv.DIO-</u>		
	rad-antibodies.com/proto						
		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 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 <sup>™</sup> (Product Code <u>BUF09</u> ) for this purpose.						
Target Species	Bovine						
Species Cross	Reacts with: Sheep, Human						
Reactivity	<b>N.B.</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	<b>Mouse anti Bovine Interleukin-12/23 antibody, clone CC326</b> 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 10ul of the suggested working dilution to label 10 <sup>6</sup> cells of 100ul.					
References	<ol> <li>Hope, J.C. <i>et al.</i> (2002) Development of detection methods for ruminant interleukin (IL)-12. J Immunol Methods. 266 (1-2): 117-26.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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</li> </ol>					

species. <u>J Immunol. 185: 3313-25.</u>

	<ul> <li>6. 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. <u>Clin Diagn Lab</u> <u>Immunol. 11: 463-72.</u></li> <li>7. Ferret-Bernard, S. <i>et al.</i> (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> <u>5: e13705.</u></li> <li>8. Souza, M. <i>et al.</i> (2008) Pathogenesis and immune responses in gnotobiotic calves after</li> </ul>
	<ul> <li>infection with the genogroup II.4-HS66 strain of human norovirus. <u>J Virol. 82: 1777-86.</u></li> <li>9. Stephens, S.A. <i>et al.</i> (2003) Differences in cytokine synthesis by the sub-populations of</li> </ul>
	<ul> <li>dendritic cells from afferent lymph. <u>Immunology. 110: 48-57.</u></li> <li>10. Verhelst, D. <i>et al.</i> (2014) Parasite distribution and associated immune response during the acute phase of <i>Toxoplasma gondii</i> infection in sheep. <u>BMC Vet Res.10: 293.</u></li> <li>11. Beechler, B.R. <i>et al.</i> (2015) Enemies and turncoats: bovine tuberculosis exposes pathogenic potential of Rift Valley fever virus in a common host, African buffalo (<i>Syncerus caffer</i>). <u>Proc Biol Sci. 282 (1805) pii: 20142942.</u></li> <li>12. Rutigliano, H.M. <i>et al.</i> (2016) Trophoblast Major Histocompatibility Complex Class I Expression Is Associated with Immune-Mediated Rejection of Bovine Fetuses Produced</li> </ul>
	<ul> <li>by Cloning. <u>Biol Reprod. 95 (2): 39.</u></li> <li>13. Stabel, J.R. &amp; Bannantine, J.P. (2021) Reduced tissue colonization of <i>Mycobacterium avium.</i> subsp. <i>paratuberculosis.</i> in neonatal calves vaccinated with a cocktail of recombinant proteins. <u>Vaccine. May 06 [Epub ahead of print].</u></li> <li>14. Rodrigues, V. <i>et al.</i> (2017) Development of a bead-based multiplexed assay for simultaneous quantification of five bovine cytokines by flow cytometry. <u>Cytometry A. 91 (9): 901-7.</u></li> <li>15. Stabel, J.R. <i>et al.</i> (2021) Comparative cellular immune responses in calves after infection with <i>Mycobacterium avium.</i> subsp. <i>paratuberculosis., M. avium.</i> subsp. <i>avium., M. kansasii.</i> and <i>M. bovis</i> <u>Vet Immunol Immunopathol. 237: 110268.</u></li> <li>16. Ciliberti, M.G. <i>et al.</i> (2020) Nexus Between Immune Responses and Oxidative Stress: The Role of Dietary Hydrolyzed Lignin in <i>ex vivo</i> Bovine Peripheral Blood Mononuclear Cell Response. <u>Front Vet Sci. 7: 9.</u></li> </ul>
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 A	nti Mouse IgG (STAR12)	<u>R</u>	<u>PE</u>					
Goat Ant	Goat Anti Mouse IgG IgA IgM (STAR87) HRP							
Goat Anti Mouse IgG (STAR76)			RPE					
Goat Anti Mouse IgG (STAR70)			<u>FITC</u>					
Goat Ant	i Mouse IgG (H/L) (STAR1	17) <u>Al</u>	<u>Alk. Phos.</u> , <u>DyLight®488</u> , <u>DyLight®550</u> ,					
	<u>DyLight®650, DyLight®680, DyLight®800,</u>							
		<u>FI</u>	<u>TC, HRP</u>					
Rabbit Anti Mouse IgG (STAR9) <u>FITC</u>								
Goat Anti Mouse IgG (STAR77) <u>HRP</u>								
Goat Anti Mouse IgG (Fc) (STAR120) <u>FITC</u> , <u>HRP</u>								
Rabbit Anti Mouse IgG (STAR13) <u>HRP</u>								
Recomm	nended Negative Cont	rols						
MOUSE IgG2b NEGATIVE CONTROL:Preservative Free (MCA691XZ)								
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			
Email: antibody_sales_us@bio-rad.com       Email: antibody_sales_uk@bio-rad.com       Email: antibody_sales_de@bio-rad.com								
<b>T</b> C I I								

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets M366287:200529'

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