

# Datasheet: MCA2334A488

Description:	MOUSE ANTI BOVINE TNF ALPHA:Alexa Fluor® 488		
Specificity:	TNF ALPHA		
Format:	ALEXA FLUOR® 488		
Product Type:	Monoclonal Antibody		
Clone:	CC327		
Isotype:	lgG2b		
Quantity:	100 TESTS/1ml		

## **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 N	o	Not Determined	Suggested Dilution	
	Flow Cytometry (1)	•			1/10 - 1/50	
	Where this antibody ha	as not been teste	ed for	use in a particular tec	hnique 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.					
	(1) Membrane permeabilization is required for this application. The use of					
	Leucoperm (Product	Code <u>BUF09</u> ) is	s reco	ommended for this p	urpose.	
Target Species	Bovine					
Species Cross	Reacts with: Fallow de	er				
Reactivity	N.B. Antibody reactivity and working conditions may vary between species. Cross					
	reactivity is derived from testing within our laboratories, peer-reviewed publications or				wed publications or	
	personal communications from the originators. Please refer to references indicated for					
	further information.					
Product Form	Purified IgG conjugated to Alexa Fluor® 488 - liquid					
Max Ex/Em	Fluorophore	Excitation Max (	nm)	Emission Max (nm)		
	Alexa Fluor®488	495		519		
Preparation	Purified IgG prepared I supernatant	by affinity chrom	atogr	aphy on Protein A fron	n tissue culture	
Buffer Solution	Phosphate buffered sa	line				

Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
Immunogen	Recombinant bovine TNF alpha.
External Database Links	UniProt: <u>Q06599</u> <u>Related reagents</u> Entrez Gene: <u>280943</u> TNF <u>Related reagents</u>
Synonyms	TNFA, TNFSF2
RRID	AB_567242
Specificity	<ul> <li>Mouse anti Bovine TNF alpha antibody, clone CC327 recognizes bovine TNF alpha, a 17.5 kDa cytokine, expressed by many different stimulated cell types including monocytes, macrophages, endothelial cells, fibroblasts and both T and B-lymphocytes.</li> <li>The production of TNF alpha is induced by a variety of factors, dependant upon cell type and includes bacterial toxins, IL-1, PDGF, IFN-beta, NGF, Oncostatin M and viral infections. The presence of TNF alpha is responsible for diverse immunomodulatory, anti-tumour and toxic effects and under certain conditions is also capable of self-stimulation and inhibition.</li> </ul>
Flow Cytometry	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul.
References	<ol> <li>Hope, J.C. <i>et al.</i> (2003) Maturation of bovine dendritic cells by lipopeptides. <u>Vet Immunol Immunopathol. 95 (1-2): 21-31.</u></li> <li>Whelan, A.O. <i>et al.</i> (2003) Modulation of the bovine delayed-type hypersensitivity responses to defined mycobacterial antigens by a synthetic bacterial lipopeptide. <u>Infect Immun. 71 (11): 6420-5.</u></li> <li>Guergnon J <i>et al.</i> (2003) A tumour necrosis factor alpha autocrine loop contributes to proliferation and nuclear factor-kappaβ activation of <i>Theileria parva</i>-transformed B cells. <u>Cell Microbiol. 5 (10): 709-16.</u></li> <li>Kwong, L.S. <i>et al.</i> (2010) Production and characterization of two monoclonal antibodies to bovine tumournecrosis factor alpha) and their cross-reactivity with ovine TNF-alpha. <u>Vet Immunol Immunopathol. 135: 320-4.</u></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. <u>93: 2458-70.</u></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. <u>Funct Integr Genomics. 10: 21-38.</u></li> </ol>

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11. Redondo, E. *et al.* (2014) Induction of interleukin-8 and interleukin-12 in neonatal ovine lung following experimental inoculation of bovine respiratory syncytial virus. <u>J Comp</u> Pathol. 150 (4): 434-48.

12. Luisa, C. *et al.* (2016) Evaluation of serum markers of blood redox homeostasis and inflammation in PCB naturally contaminated heifers undergoing decontamination <u>Science</u> of The Total Environment. 542: 653-64.

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14. 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. <u>Biol Reprod. 95 (2): 39.</u>

15. Camejo, M.I. *et al.* (2014) TNF-alpha in bulls experimentally infected with *Trypanosoma vivax*: a pilot study. <u>Vet Immunol Immunopathol. 162 (3-4): 192-7.</u>

16. Jolly A *et al.* (2016) Evidence of a pro-apoptotic effect of specific antibodies in a bovine macrophage model of infection with *Mycobacterium avium* subsp. paratuberculosis. <u>Vet Immunol Immunopathol. 169: 47-53.</u>

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StorageThis product is shipped at ambient temperature. It is recommended to aliquot and store at<br/>-20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for<br/>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			
Acknowledgements	This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com			
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2334A488 10041			
Regulatory	For research purposes only			

### **Related Products**

### **Recommended Negative Controls**

#### MOUSE IgG2b NEGATIVE CONTROL:Alexa Fluor® 488 (MCA691A488)

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@bi	io-rad.com	Email: antibody_sales_uk@bic	-rad.com	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 'M404136:220820'

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