

Datasheet: MCA2334A488

**BATCH NUMBER 1806**

<b>Description:</b>	MOUSE ANTI BOVINE TNF ALPHA:Alexa Fluor® 488
<b>Specificity:</b>	TNF ALPHA
<b>Format:</b>	ALEXA FLUOR® 488
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	CC327
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			1/10 - 1/50

Where this antibody has not been tested for use in a particular technique 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 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

Reacts with: Fallow deer

**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 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 by affinity chromatography on Protein A from tissue culture supernatant

<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide 1% Bovine Serum Albumin
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml
<b>Immunogen</b>	Recombinant bovine TNF alpha.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q06599</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">280943</a>    TNF    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	TNFA, TNFSF2
<b>RRID</b>	AB_567242
<b>Specificity</b>	<p><b>Mouse anti Bovine TNF alpha antibody, clone CC327</b> 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.</p> <p>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.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>Hope, J.C. <i>et al.</i> (2003) Maturation of bovine dendritic cells by lipopeptides. <a href="#">Vet Immunol Immunopathol. 95 (1-2): 21-31.</a></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. <a href="#">Infect Immun. 71 (11): 6420-5.</a></li> <li>Guernon J <i>et al.</i> (2003) A tumour necrosis factor alpha autocrine loop contributes to proliferation and nuclear factor-kappa<math>\beta</math> activation of <i>Theileria parva</i>-transformed B cells. <a href="#">Cell Microbiol. 5 (10): 709-16.</a></li> <li>Kwong, L.S. <i>et al.</i> (2010) Production and characterization of two monoclonal antibodies to bovine tumournecrosis factor alpha (TNF-alpha) and their cross-reactivity with ovine TNF-alpha. <a href="#">Vet Immunol Immunopathol. 135: 320-4.</a></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. <a href="#">J Dairy Sci. 93: 2458-70.</a></li> <li>Rinaldi, M. <i>et al</i> (2010) A sentinel function for teat tissues in dairy cows: dominant</li> </ol>

innate immune response elements define early response to *E. coli* mastitis. [Funct Integr Genomics. 10: 21-38.](#)

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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. [J Comp 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 [Science of The Total Environment. 542: 653-64.](#)

13. Maggioli, M.F. *et al.* (2016) Increased TNF- $\alpha$ /IFN- $\gamma$ /IL-2 and Decreased TNF- $\alpha$ /IFN- $\gamma$  Production by Central Memory T Cells Are Associated with Protective Responses against Bovine Tuberculosis Following BCG Vaccination. [Front Immunol. 7: 421.](#)

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. [Biol Reprod. 95 \(2\): 39.](#)

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

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. [Vet Immunol Immunopathol. 169: 47-53.](#)

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**Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee**

12 months from date of despatch

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**Acknowledgements**

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**Health And Safety Information**      Material Safety Datasheet documentation #10041 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA2334A488>  
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**Regulatory**                      For research purposes only

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## Related Products

### Recommended Negative Controls

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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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](https://bio-rad-antibodies.com/datasheets)  
'M366668:200529'

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