

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:	IgG2b
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	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.		
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 G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml		
Immunogen	Recombinant bovine TNF alpha.		

**External Database
Links**

UniProt:

[Q06599](#) [Related reagents](#)

Entrez Gene:

[280943](#) TNF [Related reagents](#)

Synonyms

TNFA, TNFSF2

Specificity

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.

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.

Flow Cytometry

Use 10ul of the suggested working dilution to label 1x10⁶ cells in 100ul.

References

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3. Guergnon J *et al.* (2003) A tumour necrosis factor alpha autocrine loop contributes to proliferation and nuclear factor-kappa β activation of *Theileria parva*-transformed B cells. [Cell Microbiol. 5 \(10\): 709-16.](#)
4. Kwong, L.S. *et al.* (2010) Production and characterization of two monoclonal antibodies to bovine tumournecrosis factor alpha (TNF-alpha) and their cross-reactivity with ovine TNF-alpha. [Vet Immunol Immunopathol. 135: 320-4.](#)
5. 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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7. Sow, F.B. *et al.* (2011) Respiratory syncytial virus is associated with an inflammatory response in lungs and architectural remodeling of lung-draining lymph nodes of newborn lambs. [Am J Physiol Lung Cell Mol Physiol. 300 \(1\): L12-24.](#)
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12. Cigliano, L. *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- α /IFN- γ /IL-2 and Decreased TNF- α /IFN- γ 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.](#)

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.

Shelf Life

18 months from date of despatch.

Acknowledgements

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Health And Safety Information

Material Safety Datasheet documentation #10041 available at: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

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

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Printed on 05 May 2018