Datasheet: MCA1783

Description:	MOUSE ANTI BOVINE INTERFERON GAMMA
Specificity:	IFN GAMMA
Other names:	INTERFERON GAMMA
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	CC302
Isotype:	IgG1
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)	▪			1/100 - 1/500
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting			▪	

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 permeabilization is required for this application. Bio-Rad recommend the use of Leucoperm™ (Product Code BUF09) for this purpose.**

Target Species	Bovine
Species Cross Reactivity	Reacts with: Human, Pig, Dog, Horse, Sheep, Goat, Dolphin, Ferret, Mink, Fin Whale, Rabbit Based on sequence similarity, is expected to react with:Mustelid **N.B.** Antibody reactivity and working conditions may vary between species.
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	0.09% Sodium Azide (NaN_3)
Carrier Free	Yes

Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
External Database Links	**UniProt:** P07353 Related reagents **Entrez Gene:** 281237 IFNG Related reagents
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 IFNγ antibody, clone CC302,** recognizes bovine interferon-gamma, a 143 amino acid cytokine with potent activating, antiviral and anti proliferitive properties, produced as a pro-peptide with an additional 23 amino acid N-terminal signal peptide sequence having a molecular weight of ~20 kDa. IFNγ is predominantly secreted by activated T lymphocytes in response to specific mitogens as a result of infection (Rhodes *et al.* 2000). Mouse anti bovine γ inerferon antibody, clone CC302 has been demonstrated to be reactive to a number of mammalian species including human, sheep, dog, pig, goat and mink (Pedersen *et al.* 2002). Clone CC302 has been successfully used for the evaluation of γ interferon levels in the sera of calves naturally infected with *M. avium.* subsp *paratuberculosis* (Appana *et al.* 2013) as a detection reagent using an ELISA.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10^6 cells in 100ul.
ELISA	Biotinylated mouse anti bovine IFNγ, clone CC302, may be used as the detection reagent in a sandwich ELISA with purified mouse anti bovine IFNγ, clone CC330, as the capture reagent and recombinant bovine IFNγ as the standard.
References	1. Hasvold, H.J. *et al.* (2002) *In vitro* responses to purified protein derivate of caprine T lymphocytes following vaccination with live strains of *Mycobacterium avium* subsp *paratuberculosis*. Vet Immunol Immunopathol. 90 (1-2): 79-89. 2. Mwangi, W. *et al.* (2002) DNA-encoded fetal liver tyrosine kinase 3 ligand and granulocyte macrophage-colony-stimulating factor increase dendritic cell recruitment to the inoculation site and enhance antigen-specific $CD4^+$ T cell responses induced by DNA vaccination of outbred animals. J Immunol. 169 (7): 3837-46. 3. Pedersen, L.G. *et al.* (2002) Identification of monoclonal antibodies that cross-react with cytokines from different animal species. Vet Immunol Immunopathol. 88 (3-4): 111-22. 4. Aasted, B. *et al.* (2002) Cytokine profiles in peripheral blood mononuclear cells and lymph node cells from piglets infected in utero with porcine reproductive and respiratory syndrome virus. Clin Diagn Lab Immunol. 9 (6): 1229-34. 5. Nielsen, L. *et al.* (2009) Lymphotropism and host responses during acute wild-type canine distemper virus infections in a highly susceptible natural host. J Gen Virol. 90: 2157-65. 6. Jaber, J.R. *et al.* (2010) Cross-reactivity of anti-human, anti-porcine and anti-bovine cytokine antibodies with cetacean tissues. J Comp Pathol. 143: 45-51. 7. Martel, C.J. & Aasted, B. (2009) Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. Vet Immunol Immunopathol. 132:109-15. 8. 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. 9. Ferret-Bernard, S. *et al.* (2011) Mesenteric lymph node cells from neonates present a prominent

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Further Reading	1. Rhodes, S. *et al*. (2000) Distinct response kinetics of gamma interferon and interleukin-4 in bovine tuberculosis. Infect Immun. 68:5393-400.
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. 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.
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE

Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®549, DyLight®649, DyLight®680, DyLight®800, FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG1 (HCA036...)	HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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