Datasheet: MCA2444GA

BATCH NUMBER 170590

Description:	MOUSE ANTI BOVINE MHC CLASS I MONOMORPHIC
Specificity:	MHC CLASS I MONOMORPHIC
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	IL-A88
Isotype:	IgG2a
Quantity:	0.1 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	▪			1/25 - 1/200
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. 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.

Target Species	Bovine
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
Immunogen	Bovine peripheral blood mononuclear cells.
External Database Links	**UniProt:** Q30289 Related reagents
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the X63.Ag8.653 myeloma cell line.
Specificity	**Mouse anti Bovine MHC Class I Monomorphic antibody, clone IL-A88** recognizes a monomorphic determinant within the heavy chain of bovine MHC Class I. Bovine MHC class I molecules are expressed at varying levels on most nucleated cells, with exception of neural cells. This antibody immunoprecipitates a band of approximately 45 kDa under reducing conditions.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10^6 cells in 100ul.
References	1. Ambagala, A.P. *et al.* (2000) An early pseudorabies virus protein down-regulates porcine MHC class I expression by inhibition of transporter associated with antigen processing (TAP). J Immunol. 164 (1): 93-9. 2. Daubenberger CA *et al.* (1999) Bovine gammadelta T-cell responses to the intracellular protozoan parasite *Theileria parva*. Infect Immun. 67 (5): 2241-9. 3. Araibi, E.H. *et al.* (2004) Downregulation of major histocompatibility complex class I in bovine papillomas. J Gen Virol. 85 (Pt 10): 2809-14. 4. Ashrafi, G.H. *et al.* (2002) Down-regulation of MHC class I by bovine papillomavirus E5 oncoproteins. Oncogene. 21: 248-59. 5. Suzuki, T. *et al.* (2003) Evaluation of the delta subunit of bovine adaptor protein complex 3 as a receptor for bovine leukaemia virus. J Gen Virol. 84 (Pt 5): 1309-16. 6. Stephens SA & Howard CJ (2002) Infection and transformation of dendritic cells from bovine afferent lymph by *Theileria annulata*. Parasitology. 124 (Pt 5): 485-93. 7. Toye, P.G. *et al.* (1990) Transfection into mouse L cells of genes encoding two serologically and functionally distinct bovine class I MHC molecules from a MHC-homozygous animal: evidence for a second class I locus in cattle. Immunology. 70: 20-6. 8. Marchetti, B. *et al.* (2002) The bovine papillomavirus oncoprotein E5 retains MHC class I molecules in the Golgi apparatus and prevents their transport to the cell surface. Oncogene. 21:7808-16 9. Bainbridge, DR. *et al.* (2001) Increased expression of major histocompatibility complex (MHC) class I transplantation antigens in bovine trophoblast cells before fusion with maternal cells. Reproduction.122: 907-13. 10. Norimatsu, M. *et al.* (2003) Differential response of bovine monocyte-derived macrophages and dendritic cells to infection with Salmonella typhimurium in a low-dose model in vitro. Immunology. 108: 55-61. 11. Goh, S. *et al.* (2016) Identification of *Theileria lestoquardi* Antigens Recognized by

CD8+ T Cells. PLoS One. 11 (9): e0162571.
12. Risalde, M.A. *et al.* (2020) BVDV permissiveness and lack of expression of co-stimulatory molecules on PBMCs from calves pre-infected with BVDV. Comp Immunol Microbiol Infect Dis. 68: 101388.
13. Liu, J. *et al.* (2020) *Theileria annulata.* transformation altered cell surface molecules expression and endocytic function of monocyte-derived dendritic cells. Ticks Tick Borne Dis. 11 (3): 101365.
14. Song, M. *et al.* (2023) Preliminary study of improving immune tolerance in vivo of bioprosthetic heart valves through a novel antigenic removal method. Front Bioeng Biotechnol. 11: 1141247.

Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for 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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2444GA
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP

Recommended Negative Controls

MOUSE IgG2a NEGATIVE CONTROL (MCA929)

Product inquiries: www.bio-rad-antibodies.com/technical-support

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

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