

Datasheet: MCA2445GA

Description:	MOUSE ANTI BOVINE MHC CLASS II MONOMORPHIC
Specificity:	MHC CLASS II MONOMORPHIC
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	IL-A21
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	▪			
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 G 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
RRID	AB_11152592
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the X63.Ag8.653 myeloma cell line.
Specificity	<p>Mouse anti Bovine MHC Class II Monomorphic antibody, clone IL-A21 recognizes a monomorphic epitope within the bovine MHC II cell surface antigen. Clone IL-A21 is reported to react with an epitope which is common to both BoLA DR and DQ (Howard et al.1997).</p> <p>Expression of MHC II molecules have been demonstrated on bovine B cells, activated T cells, alveolar macrophages, monocytes and mammary and bronchial epithelial cells.</p> <p>Clone IL-A21 is reported to inhibit T cell proliferation following FMDV infection (Collen et al. 1991).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> Collen, T. <i>et al.</i> (1991) A T cell epitope in VP1 of foot-and-mouth disease virus is immunodominant for vaccinated cattle. J Immunol. 146 (2): 749-55. Davies, C.J. <i>et al.</i> (1992) Characterization of bovine MHC class II polymorphism using three typing methods: serology, RFLP and IEF. Eur J Immunogenet. 19 (5): 253-62. Demartini, J.C. <i>et al.</i> (1993) Differential <i>in vitro</i> and <i>in vivo</i> expression of MHC class II antigens in bovine lymphocytes infected by <i>Theileria parva</i>. Vet Immunol Immunopathol. 35 (3-4): 253-73. Howard, C.J. <i>et al.</i> (1997) Identification of two distinct populations of dendritic cells in afferent lymph that vary in their ability to stimulate T cells. J Immunol. 159 (11): 5372-82. Ballingall, K. <i>et al.</i> (2001) Transcription of the unique ruminant class II major histocompatibility complex-DYA and DIB genes in dendritic cells. Eur J Immunol. 31 (1): 82-6. Sathiyaseelan, T. <i>et al.</i> (2002) Immunological characterization of a gammadelta T-cell stimulatory ligand on autologous monocytes. Immunology. 105:181-9 Daubenberger, C. <i>et al.</i> (1999) Bovine gammadelta T-cell responses to the intracellular protozoan parasite <i>Theileria parva</i> Infect Immun. 67:2241-9. Constantinoiu, C.C. <i>et al.</i> (2010) Local immune response against larvae of <i>Rhipicephalus (Boophilus) microplus</i> in <i>Bos taurus indicus</i> and <i>Bos taurus taurus</i> cattle. Int J Parasitol. 40: 865-75. Dorneles, E.M. <i>et al.</i> (2015) Immune Response of Calves Vaccinated with <i>Brucella abortus</i> S19 or RB51 and Revaccinated with RB51. PLoS One. 10 (9): e0136696. Choi, K.S. (2017) The effect of bovine viral diarrhea virus on bovine monocyte phenotype. Iran J Vet Res. 18 (1): 13-17. Sei, J.J. <i>et al.</i> (2016) Effect of Foot-and-Mouth Disease Virus Infection on the Frequency, Phenotype and Function of Circulating Dendritic Cells in Cattle. PLoS One. 11 (3): e0152192. Pérez-caballero, R. <i>et al.</i> (2018) Comparative dynamics of peritoneal cell

immunophenotypes in sheep during the early and late stages of the infection with *Fasciola hepatica* by flow cytometric analysis. [Parasit Vectors. 11 \(1\): 640.](#)

13. Brodzki, P. *et al.* (2019) Selected leukocyte subpopulations in peripheral blood and uterine washings in cows before and after intrauterine administration of cefapirin and methisoprinol. [Anim Sci J. Nov 06 \[Epub ahead of print\].](#)

Storage	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 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 IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR8...)	DyLight@800
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Human Anti Mouse IgG2a (HCA037...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight@488 , DyLight@680 , DyLight@800 , FITC , HRP

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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