Datasheet: MCA2445PE

Description:	MOUSE ANTI BOVINE MHC CLASS II MONOMORPHIC:RPE
Specificity:	MHC CLASS II MONOMORPHIC
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	IL-A21
Isotype:	IgG2a
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	▪			Neat

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 conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution

Reconstitute with 1.0 ml distilled water

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578

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)
1% Bovine Serum Albumin
5% Sucrose

RRID	AB_11152946
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 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). Expression of MHC II molecules have been demonstrated on bovine B cells, activated T cells, alveolar macrophages, monocytes and mammary and bronchial epithelial cells. Clone IL-A21 is reported to inhibit T cell proliferation following FMDV infection (Collen *et al.* 1991).
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10^6 cells in 100ul.
References	1. Collen, T. *et al.* (1991) A T cell epitope in VP1 of foot-and-mouth disease virus is immunodominant for vaccinated cattle. J Immunol. 146 (2): 749-55. 2. Davies, C.J. *et al.* (1992) Characterization of bovine MHC class II polymorphism using three typing methods: serology, RFLP and IEF. Eur J Immunogenet. 19 (5): 253-62. 3. Demartini, J.C. *et al.* (1993) Differential *in vitro* and *in vivo* expression of MHC class II antigens in bovine lymphocytes infected by *Theileria parva*. Vet Immunol Immunopathol. 35 (3-4): 253-73. 4. Howard, C.J. *et al.* (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. 5. Ballingall, K. *et al.* (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. 6. Sathiyaseelan, T. *et al*. (2002) Immunological characterization of a gammadelta T-cell stimulatory ligand on autologous monocytes. Immunology. 105:181-9 7. Daubenberger, C. *et al*. (1999) Bovine gammadelta T-cell responses to the intracellular protozoan parasite *Theileria parva* Infect Immun. 67:2241-9. 8. Constantinoiu, C.C. *et al.* (2010) Local immune response against larvae of Rhipicephalus (Boophilus) microplus in Bos taurus indicus and Bos taurus taurus cattle. Int J Parasitol. 40: 865-75. 9. Dorneles, E.M. *et al.* (2015) Immune Response of Calves Vaccinated with *Brucella abortus* S19 or RB51 and Revaccinated with RB51. PLoS One. 10 (9): e0136696. 10. Choi, K.S. (2017) The effect of bovine viral diarrhea virus on bovine monocyte phenotype. Iran J Vet Res. 18 (1): 13-17. 11. Sei, J.J. *et al.* (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. 12. Pérez-caballero, R. *et al.* (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	Prior to reconstitution store at +4°C. After reconstitution store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. 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 #20487 available at: 20487: https://www.bio-rad-antibodies.com/uploads/MSDS/20487.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG2a NEGATIVE CONTROL:RPE (MCA929PE)

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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Printed on 12 Feb 2021