Datasheet: MCA2436PE

BATCH NUMBER 165936

Description:	MOUSE ANTI BOVINE CD80:RPE
Specificity:	CD80
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	IL-A159
Isotype:	IgG1
Quantity:	100 TESTS

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 - 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. 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

Species Cross Reactivity

Reacts with: Sheep

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution

Reconstitute with 1 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 A from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN_3) 1% Bovine Serum Albumin 5% Sucrose
External Database Links	**UniProt:** O46405 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 CD80 antibody, clone IL-A159** recognizes the bovine CD80 cell surface antigen, expressed by dendritic cells, activated macrophages and activated B cells. CD80 plays a key role in co-stimulation of T cells during the primary immune response.
Flow Cytometry	Use 10ul of the suggested working dilution to label $1x10^6$ cells in 100ul
References	1. Glew, E.J. *et al.* (2003) Differential effects of bovine viral diarrhoea virus on monocytes and dendritic cells. J Gen Virol. 84 (Pt 7): 1771-80. 2. Rhodes, S.G. *et al.* (2003) 1,25-dihydroxyvitamin D3 and development of tuberculosis in cattle. Clin Diagn Lab Immunol. 10 (6): 1129-35. 3. Epardaud, M. *et al.* (2004) Enrichment for a CD26hi SIRP- subset in lymph dendritic cells from the upper aero-digestive tract. J Leukoc Biol. 76 (3): 553-61. 4. Langelaar, M.F. *et al.* (2005) *Mycobacterium avium* ssp. *paratuberculosis* recombinant heat shock protein 70 interaction with different bovine antigen-presenting cells. Scand J Immunol. 61 (3): 242-50. 5. Bonneau, M. *et al.* (2006) Migratory monocytes and granulocytes are major lymphatic carriers of Salmonella from tissue to draining lymph node. J Leukoc Biol. 79: 268-76. 6. Hart, J. *et al.* (2011) *Theileria annulata*-transformed cell lines are efficient antigen-presenting cells for *in vitro* analysis of CD8 T cell responses to bovine herpesvirus-1. Vet Res. 42: 119. 7. Ikebuchi, R. *et al.* (2013) Blockade of bovine PD-1 increases T cell function and inhibits bovine leukemia virus expression in B cells *in vitro.* Vet Res. 44: 59. 8. Totté P *et al.* (2015) Free exopolysaccharide from *Mycoplasma mycoides* subsp. *mycoides* possesses anti-inflammatory properties. Vet Res. 46 (1): 122. 9. Corripio-Miyar, Y. *et al.* (2017) 1,25-Dihydroxyvitamin D3 modulates the phenotype and function of Monocyte derived dendritic cells in cattle. BMC Vet Res. 13 (1): 390. 10. 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. 11. Edwards, J.H. *et al.* (2021) Integration and functional performance of a decellularised porcine superflexor tendon graft in an ovine model of anterior cruciate ligament reconstruction. Biomaterials. 279: 121204. 12. Marzo, S. *et al.* (2021) Characterisation of dendritic cell frequency and phenotype in bovine afferent lymph reveals kinetic changes in costimulatory molecule expression Vet

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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. Stabel, J.R. *et al.* (2022) B cell phenotypes and maturation states in cows naturally infected with *Mycobacterium avium* subsp. *Paratuberculosis*. PLoS One. 17 (12): e0278313.
15. Vafaee, T. *et al.* (2022) Repopulation of decellularised porcine pulmonary valves in the right ventricular outflow tract of sheep: Role of macrophages. J Tissue Eng. 13: 20417314221102680.
16. Wu, H. *et al.* (2023) Electrical stimulation of piezoelectric BaTiO3 coated Ti6Al4V scaffolds promotes anti-inflammatory polarization of macrophages and bone repair via MAPK/JNK inhibition and OXPHOS activation. Biomaterials. 293: 121990.

Storage	Prior to reconstitution store at +4°C. Following 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: https://www.bio-rad-antibodies.com/SDS/MCA2436PE 20487
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

Recommended Useful Reagents

BOVINE DENDRITIC CELL GROWTH KIT (PBP014KZZ)
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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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M422011:230822'

Printed on 19 Jan 2024