Datasheet: MCA1654PE

BATCH NUMBER 168576

Description:	MOUSE ANTI BOVINE CD8 BETA:RPE
Specificity:	CD8 BETA
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	CC58
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 - 1/10

Where this product 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 product for use in their own system using appropriate negative/positive controls.

Target Species

Bovine

Species Cross Reactivity

Reacts with: Sheep, Goat, Water Buffalo

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
Immunogen	Bovine leucocytes
External Database Links	**UniProt:** A7YW30 Related reagents
RRID	AB_322962
Specificity	**Mouse anti Bovine CD8 beta antibody, clone CC58** recognizes an epitope associated with the bovine CD8 beta chain. CD8 is usually expressed as an α/β heterodimer. The CD8 antigen is a cell surface glycoprotein found on most cytotoxic T lymphocytes that mediates efficient cell-cell interactions within the immune system. The CD8 antigen, acting as a coreceptor, and the T-cell receptor on the T lymphocyte recognize antigens displayed by an antigen presenting cell (APC) in the context of class I MHC molecules. Mouse anti Bovine CD8 beta antibody, clone CC58 has been successfully used for the immunohistochemical detection of CD8 on formalin fixed, paraffin embedded placental tissue from water buffalo (Cantón *et al.* 2014).
Flow Cytometry	Use 10µl of the suggested working dilution to label 10^6 cells in 100µl
References	1. Suraud, V. *et al.* (2008) Acute infection by conjunctival route with *Brucella melitensis* induces IgG+ cells and IFN-gamma producing cells in peripheral and mucosal lymph nodes in sheep. Microbes Infect. 10: 1370-8. 2. Howard, C.J. & Naessens, J. (1993) Summary of workshop findings for cattle (tables 1 and 2). Vet Immunol Immunopathol. 39 (1-3): 25-47. 3. Naessens, J. *et al.* (1997) Nomenclature and characterization of leukocyte differentiation antigens in ruminants. Immunol Today. 18 (8): 365-8. 4. Hein, W.R. *et al.* (1991) Summary of workshop findings for leukocyte antigens of sheep. Vet Immunol Immunopathol. 27 (1-3): 28-30. 5. Gerner, W. *et al.* (2009) Identification of major histocompatibility complex restriction and anchor residues of foot-and-mouth disease virus-derived bovine T-cell epitopes. J Virol. 83: 4039-50. 6. Gerner, W. *et al.* (2010) Sensitive detection of Foxp3 expression in bovine lymphocytes by flow cytometry. Vet Immunol Immunopathol. 138: 154-8. 7. MacHugh, N.D. and Sopp, P. (1991) Individual antigens of cattle. Bovine CD8 (BoCD8). Vet Immunol Immunopathol. 27: 65-9. 8. Soltys, J. and Quinn, M.T. (1999) Selective recruitment of T-cell subsets to the udder during staphylococcal and streptococcal mastitis: analysis of lymphocyte subsets and adhesion molecule expression. Infect Immun. 67: 6293-302.

9. Cantón, G.J. *et al.* (2014) Characterization of immune cell infiltration in the placentome of water buffaloes (*Bubalus bubalis*) infected with *neospora caninum* during pregnancy. J Comp Pathol. 150: 463-8.
10. Wattegedera, S.R. *et al.* (2017) Enhancing the toolbox to study IL-17A in cattle and sheep. Vet Res. 48 (1): 20.
11. Hecker, Y.P. *et al.* (2015) Cell mediated immune responses in the placenta following challenge of vaccinated pregnant heifers with *Neospora caninum*. Vet Parasitol. 214 (3-4): 247-54.
12. Okino, C.H. *et al.* (2020) A polymorphic CD4 epitope related to increased susceptibility to *Babesia bovis.* in Canchim calves. Vet Immunol Immunopathol. 230: 110132.
13. Pooley, H.B. *et al.* (2022) Sheep vaccinated against paratuberculosis have increased levels of B cells infiltrating the intestinal tissue. Vet Immunol Immunopathol. 252: 110482.

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/MCA1654PE 20487
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

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
'M430742:240604'

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