Datasheet: MCA1653PE

BATCH NUMBER 1511C

Description:	MOUSE ANTI BOVINE CD4:RPE
Specificity:	CD4
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	CC8
Isotype:	IgG2a
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

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) - lyophilised
Reconstitution	Reconstitute with 1 ml distilled water
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 lymphocytes.

External Database Links	**UniProt:** A7YY52 Related reagents
Fusion Partners	Spleen cells from an immunized mouse were fused with cells of the mouse NS1 myeloma cell line.
Specificity	**Mouse anti Bovine CD4 antibody, clone CC8** recognizes bovine CD4, the homolog of human CD4 and immunoprecipitates a ~50 kDa molecule. The phenotype, tissue distribution and function of T-cells expressing the bovine CD4 antigen are similar to those in other species. However, expression on macrophages has not yet been detected. Clone CC8 has been reported as being suitable for use on formalin dichromate (FD5) fixed paraffin embedded tissue with amplification and antigen retrieval techniques (Eskra *et al.* 1991).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References	1. Bensaid, A. & Hadam, M. (1991) Individual antigens of cattle. Bovine CD4 (BoCD4). Vet Immunol Immunopathol. 27 (1-3): 51-4. 2. Eskra, L. *et al.* (1991) Effect of monoclonal antibodies on in vitro function of T-cell subsets. Vet Immunol Immunopathol. 27 (1-3): 215-22. 3. Howard, C.J. *et al.* (1991) Summary of workshop findings for leukocyte antigens of cattle. Vet Immunol Immunopathol. 27 (1-3): 21-7. 4. Gutierrez, M. *et al.* (1999) The detection of CD2+, CD4+, CD8+, and WC1+ T lymphocytes, B cells and macrophages in fixed and paraffin embedded bovine tissue using a range of antigen recovery and signal amplification techniques. Vet Immunol Immunopathol. 71 (3-4): 321-34. 5. Sidders, B. *et al.* (2008) Screening of highly expressed mycobacterial genes identifies Rv3615c as a useful differential diagnostic antigen for the *Mycobacterium tuberculosis* complex. Infect Immun. 76: 3932-9. 6. Brackenbury, L.S. *et al.* (2005) Identification of a cell population that produces alpha/beta interferon *in vitro* and *in vivo* in response to noncytopathic bovine viral diarrhea virus. J Virol. 79: 7738-44. 7. Buddle, B.M. *et al.* (2003) Revaccination of neonatal calves with *Mycobacterium bovis* BCG reduces the level of protection against bovine tuberculosis induced by a single vaccination. Infect Immun. 71: 6411-9. 8. 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. 9. Harris, J. *et al.* (2002) Expression of caveolin by bovine lymphocytes and antigen-presenting cells Immunology. 105: 190-5. 10. Lynch, E.M. *et al.* (2010) Effect of abrupt weaning at housing on leukocyte distribution, functional activity of neutrophils, and acute phase protein response of beef calves. BMC Vet Res. 6: 39. 11. Hu, X.D. *et al.* (2009) Immunotherapy with combined DNA vaccines is an effective treatment for *M. bovis* infection in cattle Vaccine. 27: 1317-22. 12. Coad, M. *et al.* (2010) Repeat tuberculin skin testing leads to desensitisation in naturally infected tuberculous cattle which is associated with elevated interleukin-10 and

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Storage

Store at +4^{o}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 reconstitution.
Health And Safety Information	Material Safety Datasheet documentation available at: https://www.bio-rad-antibodies.com/SDS/MCA1653PE Material Safety Datasheet Documentation #10075 available at: https://www.bio-rad-antibodies.com/uploads/MSDS/10075.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

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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