

Datasheet: MCA832F

BATCH NUMBER 173173

Description:	MOUSE ANTI BOVINE CD45:FITC
Specificity:	CD45
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	CC1
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 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 Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.1mg/ml		

Immunogen	Bovine thoracic duct lymphocytes.
RRID	AB_2174255
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the NS1 mouse myeloma cell line.
Specificity	<p>Mouse anti Bovine CD45 antibody, clone CC1 recognizes the bovine homologue of the human CD45 antigen, also known as leucocyte common antigen (LCA),</p> <p>CD45 is a pan leucocyte cell surface marker expressed on all cells of hematopoietic origin except for erythrocytes (Bembridge et al. 1993). CD45 occurs in a number of isoforms, which in bovine includes CD45R, CD45RA, CD45RB and CD45RO and which have restricted cellular expression.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Bembridge, G.P. <i>et al.</i> (1993) Identification of monoclonal antibodies specific for bovine leukocyte common antigen (CD45) together with a novel broadly expressed leukocyte differentiation antigen, BoWC11. Vet Immunol Immunopathol. 39: 115-20. 2. Inchaisri, C. <i>et al.</i> (2000) Studies on the modulation of leucocyte subpopulations and immunoglobulins following intramammary infusion of beta 1,3-glucan into the bovine udder during the dry period. J Vet Med B Infect Dis Vet Public Health. 47 (5): 373-86. 3. Hu, S. <i>et al.</i> (2001) Effect of subcutaneous injection of ginseng on cows with subclinical <i>Staphylococcus aureus</i> mastitis. J Vet Med B Infect Dis Vet Public Health. 48 (7): 519-28. 4. Gånheim, C. <i>et al.</i> (2005) Changes in peripheral blood leucocyte counts and subpopulations after experimental infection with BVDV and/or <i>Mannheimia haemolytica</i>. J Vet Med B Infect Dis Vet Public Health. 52 (9): 380-5. 5. Niku, M. <i>et al.</i> (2006) Identification of major cell types in paraffin sections of bovine tissues. BMC Vet Res. 2: 5. 6. Grönlund, U. <i>et al.</i> (2006) Changes in blood and milk lymphocyte sub-populations during acute and chronic phases of <i>Staphylococcus aureus</i> induced bovine mastitis. Res Vet Sci. 80 (2): 147-54. 7. Riondato, F. <i>et al.</i> (2008) Effects of road transportation on lymphocyte subsets in calves. Vet J. 175 (3): 364-8. 8. Huang, L. <i>et al.</i> (2010) A hierarchy of endothelial colony-forming cell activity displayed by bovine corneal endothelial cells. Invest Ophthalmol Vis Sci. 51: 3943-9. 9. Spalenza, V. <i>et al.</i> (2011) Identification of internal control genes for quantitative expression analysis by real-time PCR in bovine peripheral lymphocytes. Vet J. 189 (3): 278-83. 10. Lynch, E.M. <i>et al.</i> (2012) Effect of pre-weaning concentrate supplementation on peripheral distribution of leukocytes, functional activity of neutrophils, acute phase protein and behavioural responses of abruptly weaned and housed beef calves. BMC Vet Res. 8: 1. 11. Herry, V. <i>et al.</i> (2017) Local immunization impacts the response of dairy cows to <i>Escherichia coli</i> mastitis. Sci Rep. 7 (1): 3441. 12. Lee, J. <i>et al.</i> (2020) Bovine tongue epithelium-derived cells: A new source of bovine mesenchymal stem cells. Biosci Rep. 40 (4): BSR20181829.

13. Molinos, M. *et al.* (2023) Alterations of bovine nucleus pulposus cells with aging. [Aging Cell. 22 \(8\): e13873.](#)

Further Reading 1. Ballingall, K.T. *et al.* (2001) The CD45 locus in cattle: allelic polymorphism and evidence for exceptional positive natural selection. [Immunogenetics. 52: 276-83.](#)

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA832F>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M395822:220519'

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