Datasheet: MCA832GA

BATCH NUMBER 154997

Description:	MOUSE ANTI BOVINE CD45
Specificity:	CD45
Other names:	LCA
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	CC1
Isotype:	IgG1
Quantity:	0.1 mg

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	▪			1/25 - 1/200
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

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
Product Form	Purified IgG - liquid
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)

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Bovine thoracic duct lymphocytes
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the NS1 mouse myeloma cell line
Specificity	**Mouse anti Bovine CD45 antibody, clone CC1** recognizes the bovine homologue of the human CD45 antigen, also known as leucocyte common antigen (LCA), 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.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10^6 cells in 100ul
References	1. Bembridge, G.P. *et al.* (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. *et al.* (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. *et al.* (2001) Effect of subcutaneous injection of ginseng on cows with subclinical *Staphylococcus aureus* mastitis. J Vet Med B Infect Dis Vet Public Health. 48 (7): 519-28. 4. Gånheim, C. *et al.* (2005) Changes in peripheral blood leucocyte counts and subpopulations after experimental infection with BVDV and/or *Mannheimia haemolytica*. J Vet Med B Infect Dis Vet Public Health. 52 (9): 380-5. 5. Niku, M. *et al.* (2006) Identification of major cell types in paraffin sections of bovine tissues. BMC Vet Res. 2: 5. 6. Grönlund, U. *et al.* (2006) Changes in blood and milk lymphocyte sub-populations during acute and chronic phases of *Staphylococcus aureus* induced bovine mastitis. Res Vet Sci. 80 (2): 147-54. 7. Galatowicz, G. *et al.* (2007) Ocular anti-allergic compounds selectively inhibit human mast cell cytokines *in vitro* and conjunctival cell infiltration *in vivo*. Clin Exp Allergy. 37 (11): 1648-56. 8. Riondato, F. *et al.* (2008) Effects of road transportation on lymphocyte subsets in calves. Vet J. 175 (3): 364-8. 9. Huang, L. *et al.* (2010) A hierarchy of endothelial colony-forming cell activity displayed by bovine corneal endothelial cells. Invest Ophthalmol Vis Sci. 51: 3943-9. 10. Spalenza, V. *et al.* (2011) Identification of internal control genes for quantitative expression analysis by real-time PCR in bovine peripheral lymphocytes. Vet J. 189 (3): 278-83. 11. Lynch, E.M. *et al.* (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 Veterinary Research 8: 1
12. Herry, V. *et al.* (2017) Local immunization impacts the response of dairy cows to *Escherichia coli* mastitis. Sci Rep. 7 (1): 3441.
13. Lee, J. *et al.* (2020) Bovine tongue epithelium-derived cells: A new source of bovine mesenchymal stem cells. Biosci Rep. 40 (4): BSR20181829.

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	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. 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 #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA832GA 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

Recommended Useful Reagents

MOUSE ANTI BOVINE CD45RB (MCA1650GA)
MOUSE ANTI BOVINE CD45RO (MCA2434GA)

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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