

Datasheet: MCA834GA

BATCH NUMBER 155156

Description:	ption: MOUSE ANTI BOVINE CD4	
Specificity:	CD4	
Format:	Purified	
Product Type:	Monoclonal Antibody	
Clone:	CC30	
Isotype:	lgG1	
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				1/100
Immunohistology - Paraffin (1)				
ELISA			•	
Immunoprecipitation	•			
Western Blotting			•	

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.

(1)

Clone CC30 has been reported as being suitable for use on formal dichromate (FD5) fixed paraffin embedded tissue with amplification and antigen retrieval techniques, see Gutierrez et al. for details.

Target Species	Bovine
Species Cross Reactivity	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 - liquid
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)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Bovine thymocytes.
External Database Links	UniProt: A7YY52 Related reagents
Fusion Partners	Spleen cells from an immunised mouse were fused with cells of the mouse NS1 myeloma cell line.
Specificity	Mouse anti Bovine CD4 antibody, clone CC30 recognizes a ~50 kDa transmembrane molecule considered to be the bovine homologue of human CD4. 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. Mouse anti Bovine CD4, clone CC30 has successfully been used for immunohistochemical localization of CD4 on paraffin embedded material using zinc salt
	fixation (<u>Cantón et al. 2013</u>). Additionally, clone CC30 has been reported as being suitable for use on formal dichromate (FD5) fixed paraffin embedded tissue with amplification and antigen retrieval techniques (<u>Gutierrez et al. 1999</u>).
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. 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. 4. Winkler, M.T. et al. (1999) Bovine herpesvirus 1 can infect CD4(+) T lymphocytes and induce programmed cell death during acute infection of cattle. J Virol. 73 (10): 8657-68. 5. Winkler, M.T. et al. (2000) Persistence and reactivation of bovine herpesvirus 1 in the

tonsils of latently infected calves. <u>J Virol. 74 (11): 5337-46.</u>

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- 14. Knowles, G. *et al.* (1996) Phenotypical characterization of lymphocytes infiltrating regressing papillomas. <u>J Virol. 70: 8451-8.</u>
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- 16. Hein, W.R. and Dudler, L. (1997) TCR gamma delta+ cells are prominent in normal bovine skin and express a diverse repertoire of antigen receptors. Immunology. 91: 58-64.
- 17. Juleff, N. *et al.* (2009) Foot-and-mouth disease virus can induce a specific and rapid CD4+ T-cell-independent neutralizing and isotype class-switched antibody response in naïve cattle. J Virol. 83: 3626-36.
- 18. Hope, J.C. *et al.* (2005) Exposure to *Mycobacterium avium* induces low-level protection from *Mycobacterium bovis* infection but compromises diagnosis of disease in cattle. <u>Clin Exp Immunol. 141: 432-9.</u>
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antibody and IFN-y responses. J Wildl Dis. 47 (3): 501-10.

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- 29. Fuertes, M. *et al.* (2015) Immunohistochemical study and mRNA cytokine profile of the local immune response in cattle naturally infected with *Calicophoron daubneyi*. <u>Vet</u> Parasitol. 214 (1-2): 178-83.
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- 32. Hecker, Y.P. *et al.* (2015) Cell mediated immune responses in the placenta following challenge of vaccinated pregnant heifers with *Neospora caninum*. <u>Vet Parasitol. 214 (3-4):</u> 247-54.
- 33. Cunha, P. *et al.* (2019) Expansion, isolation and first characterization of bovine Th17 lymphocytes. Sci Rep. 9 (1): 16115.

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. 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/MCA834GA 10040		
Regulatory	For research purposes only		

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)

Goat Anti Mouse IgG IgA IgM (STAR87...)

RPE

Goat Anti Mouse IgG (STAR76...)

RPE

Goat Anti Mouse IgG (STAR70...)

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

Goat Anti Mouse IgG (STAR77...) HRP

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

Rabbit Anti Mouse IgG (STAR13...) HRP
Rabbit Anti Mouse IgG (STAR9...) FITC

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M373335:200910'

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