Datasheet: MCA834A488

Description:	MOUSE ANTI BOVINE CD4:Alexa Fluor® 488
Specificity:	CD4
Format:	ALEXA FLUOR® 488
Product Type:	Monoclonal Antibody
Clone:	CC30
Isotype:	IgG1
Quantity:	100 TESTS/1ml

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

Species Cross Reactivity

Reacts with: Bison

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 Alexa Fluor 488 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®488	495	519

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
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
Immunogen	Bovine thymocytes.
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 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 (Cantón *et al.* 2013). 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 (Gutierrez *et al.* 1999).
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. J Virol. 74 (11): 5337-46. 6. Riondato, F. *et al.* (2008) Effects of road transportation on lymphocyte subsets in calves Vet J. 175: 364-8. 7. Collins, R.A. *et al.* (1999) Bovine interleukin-12 and modulation of IFNgamma production. Vet Immunol Immunopathol. 68: 193-207. 8. Liebana, E. *et al.* (2007) Distribution and activation of T-lymphocyte subsets in tuberculous bovine lymph-node granulomas. Vet Pathol. 44: 366-72. 9. Sühwold, A. *et al.* (2010) T cell reactions of *Eimeria bovis* primary and challenge-infected calves. Parasitol Res. 106: 595-605.

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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.

Guarantee

12 months from date of despatch

Acknowledgements

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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA834A488 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 488 (MCA928A488)

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

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