

Datasheet: MCA1424A647

Description:	MOUSE ANTI BOVINE CD21:Alexa Fluor® 647
Specificity:	CD21
Other names:	CR2
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	CC21
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: Goat, Sheep, Red deer, Mule deer

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 647 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®647	650	665

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
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NSI myeloma cell line.
Specificity	<p>Mouse anti Bovine CD21 monoclonal antibody, clone CC21 recognizes the bovine CD21 cell surface antigen, a ~145 kDa single pass type I membrane glycoprotein containing multiple sushi domains. CD21 is also known as complement receptor type 2. In cattle CD21 expression is restricted to B lymphocytes (Naessens et al. 1990). CD21 may be expressed on B cells as either a long or a short form (Pringle et al. 2012)</p> <p>Mouse anti bovine CD21, clone CC21 has been used to demonstrate the co-expression of CD21 with PrP^c on B cells of scrapie infected sheep (Halliday et al. 2005).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> Howard, C.J. <i>et al.</i> (1991) Summary of workshop findings for leukocyte antigens of cattle. Vet Immunol Immunopathol. 27 (1-3): 21-7. Naessens, J. <i>et al.</i> (1990) Characterization of a bovine leucocyte differentiation antigen of 145,000 Mw restricted to B lymphocytes. Immunology 69: 525-30. Sopp, P. & Howard, C.J. (2001) IFN gamma and IL-4 production by CD4, CD8 and WC1 gamma delta TCR(+) T cells from cattle lymph nodes and blood. Vet Immunol Immunopathol. 81 (1-2): 85-96. Lwin, S. <i>et al.</i> (2009) Immune cell types involved in early uptake and transport of recombinant mouse prion protein in Peyer's patches of calves. Cell Tissue Res. 338: 343-54. Breugelmans, S. <i>et al.</i> (2011) Immunoassay of lymphocyte subsets in ovine palatine tonsils. Acta Histochem. 113: 416-22. Halliday, S. <i>et al.</i> (2005) Expression of PrPC on cellular components of sheep blood. J Gen Virol. 86 (Pt 5): 1571-9. Brackenbury, L.S. <i>et al.</i> (2005) Identification of a cell population that produces alpha/beta interferon <i>in vitro</i> and <i>in vivo</i> in response to noncytopathic bovine viral diarrhea virus. J Virol. 79: 7738-44. Breugelmans, S. <i>et al.</i> (2011) Differences between the ovine tonsils based on an immunohistochemical quantification of the lymphocyte subpopulations. Comp Immunol Microbiol Infect Dis. 34: 217-25. Richt, J.A. <i>et al.</i> (2007) Production of cattle lacking prion protein. Nat Biotechnol. 25: 132-8. Brujeni, G.N. <i>et al.</i> (2010) Bovine immunodeficiency virus and bovine leukemia virus and their mixed infection in Iranian Holstein cattle. J Infect Dev Ctries. 4 (9): 576-9. Kiku, Y. <i>et al.</i> (2010) Decrease in bovine CD14 positive cells in colostrum is associated with the incidence of mastitis after calving. Vet Res Commun. 34: 197-203. Pilla, R. <i>et al.</i> (2012) Long-term study of MRSA ST1, t127 mastitis in a dairy cow. Vet Rec. 170: 312.

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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: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

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