

Datasheet: MCA5953A647

BATCH NUMBER 152542

Description:	MOUSE ANTI BOVINE CD21:Alexa Fluor® 647
Specificity:	CD21
Other names:	CR2
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	CC51
Isotype:	IgG2b
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: Pig, African Buffalo

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
Immunogen	Bovine (Friesian cattle) mesenteric lymph node cells
External Database Links	UniProt: Q8HY44 Related reagents
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NSI myeloma cell line
Specificity	Mouse anti Bovine CD21 monoclonal antibody, clone CC51 recognizes the bovine homologue of the human 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 (CR2). In cattle CD21 expression is restricted to B-cells (Naessens et al. 1990). CD21 may be expressed on B-cells as either a long or a short form (Pringle et al. 2012). Mouse anti Bovine CD21, clone CC51 demonstrates cross reactivity with porcine and provides a reliable marker for porcine B-Cells (Sinkora et. al. 2013). In addition to clone CC51, clone CC21 (MCA1424GA) which has been demonstrated to recognise CD21 in a range of ruminant and other species is also available from Bio-Rad.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul
References	1. Sinkora, M. <i>et al.</i> (2014) The comparative profile of lymphoid cells and the T and B cell spectratype of germ-free piglets infected with viruses SIV, PRRSV or PCV2. Vet Res. 45: 91. 2. Sinkora, M <i>et al.</i> (2013) Different anti-CD21 antibodies can be used to discriminate developmentally and functionally different subsets of B lymphocytes in circulation of pigs. Dev Comp Immunol. 39: 409-18. 3. Tenaya I.W. <i>et al.</i> (2012) Flow cytometric analysis of lymphocyte subset kinetics in Bali cattle experimentally infected with Jembrana disease virus. Vet Immunol Immunopathol. 149: 167-76. 4. Denham S. <i>et al.</i> (1994) Monoclonal antibodies recognising differentiation antigens on porcine B cells. Vet Immunol Immunopathol. 43: 259-67. 5. Boersma W.J. <i>et al.</i> (2001) Summary of workshop findings for porcine B-cell markers. Vet Immunol Immunopathol. 80: 63-78. 6. Naessens, J. <i>et al.</i> (1990) Characterization of a bovine leucocyte differentiation antigen of 145,000 MW restricted to B lymphocytes. Immunology. 69 (4): 525-30.
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
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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA5953A647 10041
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA691A647\)](#)

Recommended Useful Reagents

[MOUSE ANTI PIG CD3:RPE \(MCA5951PE\)](#)

[MOUSE ANTI PIG CD3 \(MCA5951GA\)](#)

[MOUSE ANTI PIG SLA CLASS II DR \(MCA2314GA\)](#)

[RAT ANTI HUMAN CD3:Pacific Blue® \(MCA1477PB\)](#)

[MOUSE ANTI BOVINE CD4:RPE \(MCA1653PE\)](#)

[MOUSE ANTI HUMAN CD14:Pacific Blue® \(MCA1568PB\)](#)

[MOUSE ANTI HUMAN CD14:RPE \(MCA1568PE\)](#)

[MOUSE ANTI BOVINE CD25:RPE \(MCA2430PE\)](#)

[MOUSE ANTI BOVINE MHC CLASS II DR:RPE \(MCA5656PE\)](#)

[MOUSE ANTI PIG CD4 ALPHA:RPE \(MCA1749PE\)](#)

[MOUSE ANTI PIG CD25 \(MCA1736GA\)](#)

[MOUSE ANTI PIG wCD8 ALPHA:RPE \(MCA1223PE\)](#)

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