

Datasheet: MCA5953F

Description:	MOUSE ANTI BOVINE CD21:FITC
Specificity:	CD21
Other names:	CR2
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	CC51
Isotype:	IgG2b
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	▪			Neat - 1/10
Immunofluorescence			▪	

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 Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
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 0.1 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	<p>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).</p> <p>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.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul
References	<ol style="list-style-type: none"> 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. 7. Liu, J. <i>et al.</i> (2020) <i>Theileria annulata</i>. transformation altered cell surface molecules expression and endocytic function of monocyte-derived dendritic cells. Ticks Tick Borne

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. This product is photosensitive and should be protected from light.
Guarantee	12 months from date of despatch
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 IgG2b NEGATIVE CONTROL:FITC \(MCA691F\)](#)

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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