



## Datasheet: MCA5953PE

**BATCH NUMBER 148617**

<b>Description:</b>	MOUSE ANTI BOVINE CD21:RPE
<b>Specificity:</b>	CD21
<b>Other names:</b>	CR2
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	CC51
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	100 TESTS

### 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this product 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 product 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 R. Phycoerythrin (RPE) - lyophilized

#### Reconstitution

Reconstitute with 1.0 ml distilled water

Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.

#### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578

<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin 5% Sucrose
<b>Immunogen</b>	Bovine (Friesian cattle) mesenteric lymph node cells
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">Q8HY44</a> <a href="#">Related reagents</a>
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NSI myeloma cell line
<b>Specificity</b>	<p><b>Mouse anti Bovine CD21 monoclonal antibody, clone CC51</b> recognizes the bovine homologue of the human CD21 cell surface antigen, a 145 kDa single pass type I membrane glycoprotein containing multiple <a href="#">sushi</a> domains. CD21 is also known as complement receptor type 2 (CR2). In cattle CD21 expression is restricted to B-cells (<a href="#">Naessens et al. 1990</a>). CD21 may be expressed on B-cells as either a long or a short form (<a href="#">Pringle et al. 2012</a>).</p> <p>Mouse anti Bovine CD21, clone CC51 demonstrates cross reactivity with porcine and provides a reliable marker for porcine B-Cells (<a href="#">Sinkora et. al. 2013</a>). In addition to clone CC51, clone CC21 (<a href="#">MCA1424GA</a>) which has been demonstrated to recognise CD21 in a range of ruminant and other species is also available from Bio-Rad.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul
<b>References</b>	<ol style="list-style-type: none"> <li>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. <a href="#">Vet Res. 45: 91.</a></li> <li>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. <a href="#">Dev Comp Immunol. 39: 409-18.</a></li> <li>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. <a href="#">Vet Immunol Immunopathol. 149: 167-76.</a></li> <li>4. Denham S. <i>et al.</i> (1994) Monoclonal antibodies recognising differentiation antigens on porcine B cells. <a href="#">Vet Immunol Immunopathol. 43: 259-67.</a></li> <li>5. Boersma W.J. <i>et al.</i> (2001) Summary of workshop findings for porcine B-cell markers. <a href="#">Vet Immunol Immunopathol. 80: 63-78.</a></li> <li>6. Naessens, J. <i>et al.</i> (1990) Characterization of a bovine leucocyte differentiation antigen of 145,000 MW restricted to B lymphocytes. <a href="#">Immunology. 69 (4): 525-30.</a></li> <li>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. <a href="#">Ticks Tick Borne</a></li> </ol>

[Dis. 11 \(3\): 101365.](#)

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<b>Storage</b>	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light.
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20487 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA5953PE">https://www.bio-rad-antibodies.com/SDS/MCA5953PE</a> 20487
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL:RPE \(MCA691PE\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
'M375612:210104'

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