

## Datasheet: MCA1424PE

<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>	CC21
<b>Isotype:</b>	IgG1
<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 - 1/10

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: 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 R. Phycoerythrin (RPE) - lyophilized

### Reconstitution

Reconstitute with 1ml distilled water

### Max Ex/Em

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

### Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

<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>RRID</b>	AB_566638
<b>Fusion Partners</b>	Spleen cells from immunized 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 CC21</b> recognizes the bovine 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. In cattle CD21 expression is restricted to B lymphocytes (<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 CC21 has been used to demonstrate the co-expression of CD21 with PrP<sup>c</sup> on B cells of scrapie infected sheep (<a href="#">Halliday et al. 2005</a>).</p>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl
<b>References</b>	<ol style="list-style-type: none"> <li>1. 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: 525-30.</a></li> <li>2. Howard, C.J. <i>et al.</i> (1991) Summary of workshop findings for leukocyte antigens of cattle. <a href="#">Vet Immunol Immunopathol. 27 (1-3): 21-7.</a></li> <li>3. Sopp, P. &amp; 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. <a href="#">Vet Immunol Immunopathol. 81 (1-2): 85-96.</a></li> <li>4. Sigurdson, C.J. <i>et al.</i> (2002) PrP(CWD) lymphoid cell targets in early and advanced chronic wasting disease of mule deer. <a href="#">J Gen Virol. 83: 2617-28.</a></li> <li>5. Kruger, E.F. <i>et al.</i> (2003) Bovine monocytes induce immunoglobulin production in peripheral blood B lymphocytes. <a href="#">Dev Comp Immunol. 27 (10): 889-97.</a></li> <li>6. Newland, A. <i>et al.</i> (2004) Ovine dendritic cells transduced with an adenoviral CTLA4eEGFP fusion protein construct induce hyporesponsiveness to allostimulation. <a href="#">Immunology. 113: 310-7.</a></li> <li>7. Halliday, S. <i>et al.</i> (2005) Expression of PrPC on cellular components of sheep blood. <a href="#">J Gen Virol. 86 (Pt 5): 1571-9.</a></li> <li>8. 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. <a href="#">J Virol. 79: 7738-44.</a></li> <li>9. Weiss, D.J. <i>et al.</i> (2006) Mucosal immune response in cattle with subclinical Johne's disease. <a href="#">Vet Pathol. 43: 127-35.</a></li> <li>10. Richt, J.A. <i>et al.</i> (2007) Production of cattle lacking prion protein. <a href="#">Nat Biotechnol. 25: 132-8.</a></li> <li>11. 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. <a href="#">Cell Tissue Res. 338: 343-54.</a></li> </ol>

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<b>Storage</b>	<p>This product is shipped at ambient temperature.</p> <p>Prior to reconstitution store at +4°C.</p> <p>After reconstitution store at +4°C.</p> <p>DO NOT FREEZE</p> <p>This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #20487 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1424PE">https://www.bio-rad-antibodies.com/SDS/MCA1424PE</a></p>

**Regulatory**

For research purposes only

**Related Products****Recommended Negative Controls**[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)**North & South** Tel: +1 800 265 7376**America** Fax: +1 919 878 3751Email: [antibody\\_sales\\_us@bio-rad.com](mailto: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](mailto: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](mailto:antibody_sales_de@bio-rad.com)

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