

## Datasheet: MCA1654PE

<b>Description:</b>	MOUSE ANTI BOVINE CD8 BETA:RPE
<b>Specificity:</b>	CD8 BETA
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	CC58
<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.

<b>Target Species</b>	Bovine		
<b>Species Cross Reactivity</b>	Reacts with: Sheep, Goat, Water Buffalo <b>N.B.</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.		
<b>Product Form</b>	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
<b>Reconstitution</b>	Reconstitute with 1 ml distilled water		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	RPE 488nm laser	496	578
<b>Preparation</b>	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 <sub>3</sub> ) 1% bovine serum albumin 5% sucrose
Immunogen	Bovine leucocytes
External Database Links	UniProt: <a href="#">A7YW30</a> <a href="#">Related reagents</a>
RRID	AB_322962
Specificity	<p><b>Mouse anti Bovine CD8 beta antibody, clone CC58</b> recognizes an epitope associated with the bovine CD8 beta chain.</p> <p>CD8 is usually expressed as an <math>\alpha/\beta</math> heterodimer. The CD8 antigen is a cell surface glycoprotein found on most cytotoxic T lymphocytes that mediates efficient cell-cell interactions within the immune system. The CD8 antigen, acting as a coreceptor, and the T-cell receptor on the T lymphocyte recognize antigens displayed by an antigen presenting cell (APC) in the context of class I MHC molecules.</p> <p>Mouse anti Bovine CD8 beta antibody, clone CC58 has been successfully used for the immunohistochemical detection of CD8 on formalin fixed, paraffin embedded placental tissue from water buffalo (<a href="#">Cantón et al. 2014</a>).</p>
Flow Cytometry	Use 10 $\mu$ l of the suggested working dilution to label 10 <sup>6</sup> cells in 100 $\mu$ l
References	<ol style="list-style-type: none"> <li>1. Suraud, V. <i>et al.</i> (2008) Acute infection by conjunctival route with <i>Brucella melitensis</i> induces IgG+ cells and IFN-gamma producing cells in peripheral and mucosal lymph nodes in sheep. <a href="#">Microbes Infect. 10: 1370-8.</a></li> <li>2. Howard, C.J. &amp; Naessens, J. (1993) Summary of workshop findings for cattle (tables 1 and 2). <a href="#">Vet Immunol Immunopathol. 39 (1-3): 25-47.</a></li> <li>3. Naessens, J. <i>et al.</i> (1997) Nomenclature and characterization of leukocyte differentiation antigens in ruminants. <a href="#">Immunol Today. 18 (8): 365-8.</a></li> <li>4. Hein, W.R. <i>et al.</i> (1991) Summary of workshop findings for leukocyte antigens of sheep. <a href="#">Vet Immunol Immunopathol. 27 (1-3): 28-30.</a></li> <li>5. Gerner, W. <i>et al.</i> (2009) Identification of major histocompatibility complex restriction and anchor residues of foot-and-mouth disease virus-derived bovine T-cell epitopes. <a href="#">J Virol. 83: 4039-50.</a></li> <li>6. Gerner, W. <i>et al.</i> (2010) Sensitive detection of Foxp3 expression in bovine lymphocytes by flow cytometry. <a href="#">Vet Immunol Immunopathol. 138: 154-8.</a></li> <li>7. MacHugh, N.D. and Sopp, P. (1991) Individual antigens of cattle. Bovine CD8 (BoCD8). <a href="#">Vet Immunol Immunopathol. 27: 65-9.</a></li> <li>8. Soltys, J. and Quinn, M.T. (1999) Selective recruitment of T-cell subsets to the udder during staphylococcal and streptococcal mastitis: analysis of lymphocyte subsets and adhesion molecule expression. <a href="#">Infect Immun. 67: 6293-302.</a></li> </ol>

9. Cantón, G.J. *et al.* (2014) Characterization of immune cell infiltration in the placentome of water buffaloes (*Bubalus bubalis*) infected with *neospora caninum* during pregnancy. [J Comp Pathol. 150: 463-8.](#)
10. Wattegedera, S.R. *et al.* (2017) Enhancing the toolbox to study IL-17A in cattle and sheep. [Vet Res. 48 \(1\): 20.](#)
11. Hecker, Y.P. *et al.* (2015) Cell mediated immune responses in the placenta following challenge of vaccinated pregnant heifers with *Neospora caninum*. [Vet Parasitol. 214 \(3-4\): 247-54.](#)
12. Okino, C.H. *et al.* (2020) A polymorphic CD4 epitope related to increased susceptibility to *Babesia bovis*. in Canchim calves. [Vet Immunol Immunopathol. 230: 110132.](#)
13. Pooley, H.B. *et al.* (2022) Sheep vaccinated against paratuberculosis have increased levels of B cells infiltrating the intestinal tissue. [Vet Immunol Immunopathol. 252: 110482.](#)

#### Storage

This product is shipped at ambient temperature.  
Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.  
DO NOT FREEZE.  
This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

#### Guarantee

12 months from date of despatch

#### Health And Safety Information

Material Safety Datasheet documentation #20487 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA1654PE>  
20487

#### Regulatory

For research purposes only

## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

**North & South America** Tel: +1 800 265 7376  
Fax: +1 919 878 3751

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#### Worldwide

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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)

'M440157:250523'

**Printed on 24 May 2025**