

Datasheet: MCA5953GA

BATCH NUMBER 163139

Description:	MOUSE ANTI BOVINE CD21
Specificity:	CD21
Other names:	CR2
Format:	Purified
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	■			1/25 - 1/200
Immunohistology - Frozen			■	
Immunohistology - Paraffin			■	
ELISA			■	
Immunoprecipitation			■	
Western Blotting			■	

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	<p>Reacts with: Pig, African Buffalo</p> <p>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.</p>
Product Form	Purified IgG - liquid
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)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Bovine (Friesian cattle) mesenteric lymph node cells.
External Database Links	UniProt: Q8HY44 Related reagents
Fusion Partners	Spleen cells from immunized 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 10 ⁶ cells in 100ul
References	<ol style="list-style-type: none">1. Denham S. <i>et al.</i> (1994) Monoclonal antibodies recognising differentiation antigens on porcine B cells. Vet Immunol Immunopathol. 43: 259-67.2. Boersma W.J. <i>et al.</i> (2001) Summary of workshop findings for porcine B-cell markers. Vet Immunol Immunopathol. 80: 63-78.3. 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. 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: 409-18.5. 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: 91.6. 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 Dis. 11 \(3\): 101365.](#)

7. Li, J. *et al.* (2023) Single-cell transcriptomic analysis reveals transcriptional and cell subpopulation differences between human and pig immune cells. [Genes Genomics. Nov 18 \[Epub ahead of print\].](#)

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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA5953GA 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (H/L) (STAR117...) [DyLight®405](#), [DyLight®488](#), [DyLight®800](#), [FITC](#)

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL \(MCA691\)](#)

Recommended Useful Reagents

[MOUSE ANTI PIG CD14:FITC \(MCA1218F\)](#)

[MOUSE ANTI PIG CD4 ALPHA \(MCA1749GA\)](#)

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

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

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

[MOUSE ANTI PIG SLA CLASS II DR:FITC \(MCA2314F\)](#)

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

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

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