

Datasheet: MCA1648GA

Description:	MOUSE ANTI BOVINE WC4
Specificity:	WC4
Other names:	SWC7
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	CC55
Isotype:	IgG1
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	▪			1/50 - 1/100

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, Sheep

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 - 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 (NaN₃)

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Specificity	Mouse anti Bovine WC4 antibody, clone CC55 recognizes the bovine WC4 cell surface antigen, a ~90kDa molecule expressed by a subpopulation of B cells in peripheral blood and lymphoid tissues (Howard <i>et al.</i> 1993). It is suggested that WC4, like SWC7 in pigs, is the bovine orthologue of human CD19 (Naessens and Howard 1991 , Ikebuchi <i>et al.</i> 2013).
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl
References	<ol style="list-style-type: none"> Howard, C.J. <i>et al.</i> (1991) Summary of workshop findings for leukocyte antigens of cattle. Vet Immunol Immunopathol. 27 (1-3): 21-7. Denham, S. <i>et al.</i> (1994) Monoclonal antibodies recognising differentiation antigens on porcine B cells. Vet Immunol Immunopathol. 43 (1-3): 259-67. Naessens, J. <i>et al.</i> (1997) Nomenclature and characterization of leukocyte differentiation antigens in ruminants. Immunol Today. 18 (8): 365-8. Boersma, W.J. <i>et al.</i> (2001) Summary of workshop findings for porcine B-cell markers. Vet Immunol Immunopathol. 80 (1-2): 63-78. Andersen, J.K. <i>et al.</i> (1999) Systematic characterization of porcine ileal Peyer's patch, I. apoptosis-sensitive immature B cells are the predominant cell type. Immunology. 98: 612-21. Szymańska-Czerwińska, M. <i>et al.</i> (2009) Effect of tylosin and prebiotics on the level of cytokines and lymphocyte immunophenotyping parameters in calves Central European Journal of Immunology. 34: 1-6. Ikebuchi, R. <i>et al.</i> (2013) Blockade of bovine PD-1 increases T cell function and inhibits bovine leukemia virus expression in B cells <i>in vitro</i>. Vet Res. 44: 59. Ikebuchi, R. <i>et al.</i> (2014) Differences in cellular function and viral protein expression between IgMhigh and IgMlow B-cells in bovine leukemia virus-infected cattle. J Gen Virol. 95: 1832-42. Nishimori, A. <i>et al.</i> (2016) Direct polymerase chain reaction from blood and tissue samples for rapid diagnosis of bovine leukemia virus infection. J Vet Med Sci. 78 (5): 791-6. Maciag, S.S. <i>et al.</i> (2022) The influence of source of porcine colostrum in development of early immune ontogeny in the piglet Res Sq. Mar 24 [Epub ahead of print].
Further Reading	1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54.
Storage	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>

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

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®550 , DyLight®650 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: 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	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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
'M410931:221031'

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