

Datasheet: MCA1655GA

BATCH NUMBER 1601

Description:	MOUSE ANTI BOVINE WC1
Specificity:	WC1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	CC101
Isotype:	IgG2a
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	▪			
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
Functional Assays			▪	

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

Target Species	Bovine
Species Cross Reactivity	<p>Reacts with: Pig, Sheep</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 G 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

Immunogen Con A stimulated bovine lymphocytes

External Database Links

UniProt:

[P30205](#)

[Related reagents](#)

Entrez Gene:

[338056](#)

CD163L1

[Related reagents](#)

Specificity

Mouse anti Bovine WC1 antibody, clone CC101, recognizes a subset of WC1⁺ T-cells expressing the WC1.1 isoform (MacHugh *et al.* 1993). The bovine WC1 cell surface antigen is expressed by a population of gamma/delta T-cells that lack CD2, CD4 and CD8, but express CD3. WC1 expression appears to be heterogeneous and antibodies to this cluster show differing reaction patterns (Crocker *et al.* 1993).

Mouse anti bovine WC1, clone CC101, immunoprecipitates a 215 kDa molecule from bovine cells and also recognizes the swine homolog of WC1, which is a 180 kDa molecule. In pigs, the 180 kDa molecule is expressed by a gamma/delta TCR positive T-cell population that also lack CD2, CD4 and CD8 (Carr *et al.* 1994).

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

References

1. Carr, M.M. *et al.* (1994) Expression on porcine gamma/delta lymphocytes of a phylogenetically conserved surface antigen previously restricted in expression to ruminant gamma/delta T lymphocytes. [Immunology 81: 36-40.](#)
2. Howard, C.J. & Naessens, J. (1993) Summary of workshop findings for cattle. [Vet Immunol Immunopathol. 39: 25-48.](#)
3. MacHugh, N. *et al.* (1993) Clustering of monoclonal antibodies recognizing different members of the WC1 gene family. [Vet Immunol Immunopathol. 39: 155-60.](#)
4. Crocker, G. *et al.* (1993) Analysis of the gamma/delta T cell restricted antigen WC1. [Vet Immunol Immunopathol. 39: 137-44.](#)
5. Lund, B. *et al.* (1993) Expression of T19 (WC1) molecules by ovine lymphocytes. [Vet Immunol Immunopathol. 39: 145-53.](#)
6. Schröder, A.C. & Hamann, J. (2005) The influence of technical factors on differential cell count in milk. [J Dairy Res. 72: 153-8.](#)
7. Liu, X. *et al.* (2014) Crusted scabies is associated with increased IL-17 secretion by skin T cells. [Parasite Immunol. 36: 594-604.](#)

8. Patarroyo, J.H. *et al.* (2009) Immune response of bovines stimulated by synthetic vaccine SBm7462 against *Rhipicephalus (Boophilus) microplus*. [Vet Parasitol. 166: 333-9.](#)
9. Heiser, A. *et al.* (2015) Grazing dairy cows had decreased interferon- γ , tumor necrosis factor, and interleukin-17, and increased expression of interleukin-10 during the first week after calving. [J Dairy Sci. 98: 937-46.](#)
10. Takamatsu, H.H. *et al.* (2006) Porcine gammadelta T cells: possible roles on the innate and adaptive immune responses following virus infection. [Vet Immunol Immunopathol. 112: 49-61.](#)
11. Sedlak, C. *et al.* (2014) IL-12 and IL-18 induce interferon- γ production and de novo CD2 expression in porcine $\gamma\delta$ T cells. [Dev Comp Immunol. 47: 115-22.](#)
12. Herry, V. *et al.* (2017) Local immunization impacts the response of dairy cows to *Escherichia coli* mastitis. [Sci Rep. 7 \(1\): 3441.](#)
13. Hussen, J. *et al.* (2018) Expression Patterns of Cell Adhesion Molecules on CD4+ T Cells and WC1+ T Cells in the Peripheral Blood of Dromedary Camels. [Pakistan Veterinary Journal. 38 \(03\): 231-236.](#)

Further Reading	<ol style="list-style-type: none"> 1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54. 2. Wijngaard, P. <i>et al.</i> (1992) Molecular characterization of the WC1 antigen expressed specifically on bovine CD4-CD8- gamma delta T lymphocytes. J Immunol. 149: 3273-7.
Storage	<p>Store at +4°C or at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
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/MCA1655GA 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

- Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
- Goat Anti Mouse IgG IgA IgM (STAR87...) [HRP](#)
- Goat Anti Mouse IgG (STAR76...) [RPE](#)
- Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
- Goat Anti Mouse IgG (STAR70...) [FITC](#)
- 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 (STAR9...)

[FITC](#)

Goat Anti Mouse IgG (STAR77...)

[HRP](#)

Goat Anti Mouse IgG (Fc) (STAR120...)

[FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

North & South Tel: +1 800 265 7376

Worldwide

Tel: +44 (0)1865 852 700

Europe

Tel: +49 (0) 89 8090 95 21

America Fax: +1 919 878 3751

Fax: +44 (0)1865 852 739

Fax: +49 (0) 89 8090 95 50

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Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M365584:200529'

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