

## Datasheet: MCA2443GA

|                      |                       |
|----------------------|-----------------------|
| <b>Description:</b>  | MOUSE ANTI BOVINE IgM |
| <b>Specificity:</b>  | IgM                   |
| <b>Format:</b>       | Purified              |
| <b>Product Type:</b> | Monoclonal Antibody   |
| <b>Clone:</b>        | IL-A30                |
| <b>Isotype:</b>      | IgG1                  |
| <b>Quantity:</b>     | 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](http://www.bio-rad-antibodies.com/protocols).

|                            | Yes | No | Not Determined | Suggested Dilution |
|----------------------------|-----|----|----------------|--------------------|
| Flow Cytometry             | ▪   |    |                | 1/25 - 1/50        |
| Immunohistology - Frozen   |     |    | ▪              |                    |
| Immunohistology - Paraffin |     |    | ▪              |                    |
| ELISA                      | ▪   |    |                | 1/500 - 1/5000     |
| Immunoprecipitation        | ▪   |    |                |                    |
| Western Blotting           |     |    | ▪              |                    |
| Radioimmunoassays          | ▪   |    |                |                    |

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>Product Form</b>                   | Purified IgG - liquid   |
| <b>Preparation</b>                    | Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant |
| <b>Buffer Solution</b>                | Phosphate buffered saline   |
| <b>Preservative Stabilisers</b>       | 0.09% Sodium Azide (NaN <sub>3</sub> )  |
| <b>Carrier Free</b>                   | Yes   |
| <b>Approx. Protein Concentrations</b> | IgG concentration 1.0 mg/ml   |
| <b>Immunogen</b>                      | Bovine peripheral blood mononuclear cells depleted of T lymphocytes.                          |
| <b>Fusion Partners</b>                | Spleen cells from immunised BALB/c mice were fused with cells of the X63.Ag8.653 myeloma cell |

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**Specificity** **Mouse anti Bovine IgM, clone IL-A30** recognizes bovine IgM, expressed by bovine B-cells. Clone IL-A30 reacts with both serum IgM and cell surface IgM expressed by B lymphocytes. Mouse anti Bovine IgM, clone IL-A30 recognizes a monomorphic epitope within bovine IgM ([Naessens et al.1988](#)).

Studies using clone IL-A30 have demonstrated that the percentage of IgM<sup>+</sup>ve lymphocytes may vary widely ,ranging between 4 - 30%, within populations of healthy cattle, however the percentage of positive cells remains relatively constant within individual animals ([Naessens et al.1988](#)).

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**Flow Cytometry** Use 10ul of the suggested working dilution to label 1x10<sup>6</sup> cells in 100ul

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**References**

1. Naessens, J. *et al.* (1988) Identification of isotypes and allotypes of bovine immunoglobulin M with monoclonal antibodies. [Immunology. 63 \(4\): 569-74.](#)
2. Williams, D.J. *et al.* (1990) Quantitation of bovine immunoglobulin isotypes and allotypes using monoclonal antibodies. [Vet Immunol Immunopathol. 24 \(3\): 267-83.](#)
3. Campbell, J.D. *et al.* (1998) A novel cell surface proliferation-associated marker expressed on T cells and up-regulated on germinal center B cells. [J Leukoc Biol. 63 \(5\): 567-74.](#)
4. Menge, C. *et al.* (2004) Bovine ileal intraepithelial lymphocytes represent target cells for Shiga toxin 1 from *Escherichia coli*. [Infect Immun. 72 \(4\): 1896-905.](#)
5. Naessens, J. (1997) Surface Ig on B lymphocytes from cattle and sheep. [Int Immunol. 9 \(3\): 349-54.](#)
6. Morrison, W.I. *et al.* (1996) Pathogenicity of *Theileria parva* is influenced by the host cell type infected by the parasite. [Infect Immun. 64 \(2\): 557-62.](#)
7. Nishimori, A. *et al.* (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.](#)
8. Sei, J.J. *et al.* (2016) Effect of Foot-and-Mouth Disease Virus Infection on the Frequency, Phenotype and Function of Circulating Dendritic Cells in Cattle. [PLoS One. 11 \(3\): e0152192.](#)
9. Goh, S. *et al.* (2016) Identification of *Theileria lestoquardi* Antigens Recognized by CD8+ T Cells. [PLoS One. 11 \(9\): e0162571.](#)

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**Storage** Store at +4°C or at -20°C if preferred.  
Storage in frost-free freezers is not recommended.  
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Shelf Life** 18 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...) [RPE](#)

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)

Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@549](#),  
[DyLight@649](#), [DyLight@680](#), [DyLight@800](#),  
[FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Goat Anti Mouse IgG (STAR77...) [HRP](#)

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)

Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)

Goat Anti Mouse IgG (STAR70...) [FITC](#)

Rabbit Anti Mouse IgG (STAR13...) [HRP](#)

Human Anti Mouse IgG1 (HCA036...) [HRP](#)

### **Recommended Negative Controls**

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

### **Recommended Useful Reagents**

[MOUSE ANTI BOVINE IgA \(MCA2438GA\)](#)  
[MOUSE ANTI BOVINE IgA:HRP \(MCA2438P\)](#)  
[MOUSE ANTI BOVINE IgG \(MCA2439GA\)](#)  
[MOUSE ANTI BOVINE IgG:HRP \(MCA2439P\)](#)  
[MOUSE ANTI BOVINE IgG1 \(MCA2440GA\)](#)  
[MOUSE ANTI BOVINE IgG1:HRP \(MCA2440P\)](#)  
[MOUSE ANTI BOVINE IgG2 \(MCA2441GA\)](#)  
[MOUSE ANTI BOVINE IgG2:HRP \(MCA2441P\)](#)

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'M315719:180503'

**Printed on 05 May 2018**

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