

## Datasheet: MCA2443GA

**BATCH NUMBER 155323**

|                      |                       |
|----------------------|-----------------------|
| <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 A 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 line   |
| <b>Specificity</b>                    | <p><b>Mouse anti Bovine IgM, clone IL-A30</b> 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 (<a href="#">Naessens et al.1988</a>).</p> <p>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 (<a href="#">Naessens et al.1988</a>).</p>  |
| <b>Flow Cytometry</b>                 | Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul   |
| <b>References</b>                     | <ol style="list-style-type: none"> <li>1. Naessens, J. <i>et al.</i> (1988) Identification of isotypes and allotypes of bovine immunoglobulin M with monoclonal antibodies. <a href="#">Immunology. 63 (4): 569-74.</a></li> <li>2. Williams, D.J. <i>et al.</i> (1990) Quantitation of bovine immunoglobulin isotypes and allotypes using monoclonal antibodies. <a href="#">Vet Immunol Immunopathol. 24 (3): 267-83.</a></li> <li>3. Campbell, J.D. <i>et al.</i> (1998) A novel cell surface proliferation-associated marker expressed on T cells and up-regulated on germinal center B cells. <a href="#">J Leukoc Biol. 63 (5): 567-74.</a></li> <li>4. Menge, C. <i>et al.</i> (2004) Bovine ileal intraepithelial lymphocytes represent target cells for Shiga toxin 1 from <i>Escherichia coli</i>. <a href="#">Infect Immun. 72 (4): 1896-905.</a></li> <li>5. Naessens, J. (1997) Surface Ig on B lymphocytes from cattle and sheep. <a href="#">Int Immunol. 9 (3): 349-54.</a></li> <li>6. Morrison, W.I. <i>et al.</i> (1996) Pathogenicity of <i>Theileria parva</i> is influenced by the host cell type infected by the parasite. <a href="#">Infect Immun. 64 (2): 557-62.</a></li> <li>7. Nishimori, A. <i>et al.</i> (2016) Direct polymerase chain reaction from blood and tissue samples for rapid diagnosis of bovine leukemia virus infection. <a href="#">J Vet Med Sci. 78 (5): 791-6.</a></li> <li>8. Sei, J.J. <i>et al.</i> (2016) Effect of Foot-and-Mouth Disease Virus Infection on the Frequency, Phenotype and Function of Circulating Dendritic Cells in Cattle. <a href="#">PLoS One. 11 (3): e0152192.</a></li> <li>9. Goh, S. <i>et al.</i> (2016) Identification of <i>Theileria lestoquardi</i> Antigens Recognized by CD8+ T Cells. <a href="#">PLoS One. 11 (9): e0162571.</a></li> </ol> |
| <b>Storage</b>                        | <p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>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</p>   |

microcentrifugation before use.

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| <b>Guarantee</b> | 12 months from date of despatch |
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| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10040 available at:<br><a href="https://www.bio-rad-antibodies.com/SDS/MCA2443GA">https://www.bio-rad-antibodies.com/SDS/MCA2443GA</a><br>10040 |
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| <b>Regulatory</b> | For research purposes only |
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## Related Products

### Recommended Secondary Antibodies

|   |   |
|---|---|
| Goat Anti Mouse IgG (STAR77...)         | <a href="#">HRP</a>   |
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>   |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>  |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">Alk. Phos.</a> , <a href="#">HRP</a>  |
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>   |
| Goat Anti Mouse IgG (H/L) (STAR117...)  | <a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> ,<br><a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> ,<br><a href="#">FITC</a> , <a href="#">HRP</a> |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>   |
| Goat Anti Mouse IgG (Fc) (STAR120...)   | <a href="#">FITC</a> , <a href="#">HRP</a>  |
| Rabbit Anti Mouse IgG (STAR9...)        | <a href="#">FITC</a>  |

### 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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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)

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