

## Datasheet: MCA2441GA

**BATCH NUMBER 168348**

<b>Description:</b>	MOUSE ANTI BOVINE IgG2
<b>Specificity:</b>	IgG2
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	IL-A73
<b>Isotype:</b>	IgG2a
<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	▪			
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			1/20 000 - 1/200 000
Immunoprecipitation	▪			
Western Blotting			▪	

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.

<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>	Purified bovine IgG2
<b>Fusion Partners</b>	Spleen cells from immunized BALB/c mice were fused with cells of the X63.Ag8.653 myeloma cell line
<b>Specificity</b>	<p><b>Mouse anti Bovine IgG2, clone IL-A73</b>, is a monoclonal antibody specific for bovine IgG2 and does not recognise other bovine immunoglobulin classes.</p> <p>While normal serum levels of IgG1 are relatively constant in cattle at around 50%, IgG2 levels are highly variable between different strains and races.</p> <p>Mouse anti Bovine IgG2, clone IL-A73 immunoprecipitates a protein band of approximately 52-59kDa, consistent with the heavy chain of bovine IgG2 (<a href="#">Campbell et al. 1998</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul
<b>References</b>	<ol style="list-style-type: none"> <li>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>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>Williams, D.J. <i>et al.</i> (1996) The role of anti-variable surface glycoprotein antibody responses in bovine trypanotolerance. <a href="#">Parasite Immunol. 18 (4): 209-18.</a></li> <li>Hecker, Y.P. <i>et al.</i> (2014) A <i>Neospora caninum</i> vaccine using recombinant proteins fails to prevent foetal infection in pregnant cattle after experimental intravenous challenge. <a href="#">Vet Immunol Immunopathol. 162 (3-4): 142-53.</a></li> <li>Dorneles, E.M. <i>et al.</i> (2015) Immune Response of Calves Vaccinated with Brucella abortus S19 or RB51 and Revaccinated with RB51. <a href="#">PLoS One. 10 (9): e0136696.</a></li> <li>Pereyra, R. <i>et al.</i> (2019) Evidence of reduced vertical transmission of <i>Neospora caninum</i>. associated with higher IgG1 than IgG2 serum levels and presence of IFN-<math>\gamma</math> in non-aborting chronically infected cattle under natural condition. <a href="#">Vet Immunol Immunopathol. 208: 53-57.</a></li> <li>Jaramillo, J.O. <i>et al.</i> (2019) Immunisation of cattle against <i>Babesia bovis</i>. combining a multi-epitope modified vaccinia Ankara virus and a recombinant protein induce strong Th1 cell responses but fails to trigger neutralising antibodies required for protection. <a href="#">Ticks Tick Borne Dis. 10 (6): 101270.</a></li> <li>Villa-Mancera, A. <i>et al.</i> (2021) Phage display-based vaccine with cathepsin L and excretory-secretory products mimotopes of <i>Fasciola hepatica</i>. induces protective cellular and humoral immune responses in sheep. <a href="#">Vet Parasitol. 289: 109340.</a></li> <li>Di Giacomo, S. <i>et al.</i> (2022) Assessment on Different Vaccine Formulation Parameters in the Protection against Heterologous Challenge with FMDV in Cattle. <a href="#">Viruses. 14 (8): 1781.</a></li> <li>Noble, A. <i>et al.</i> (2024) Development of bovine IgG3-specific assays using a novel recombinant single-domain binding reagent <a href="#">Veterinary Immunology and Immunopathology.</a></li> </ol>

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**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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2441GA>  
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**Regulatory** For research purposes only

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## 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](#)  
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 (STAR13...) [HRP](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (STAR77...) [HRP](#)

### Recommended Negative Controls

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

### Recommended Useful Reagents

[MOUSE ANTI SHEEP IgE \(MCA5941GA\)](#)  
[MOUSE ANTI BOVINE IgM \(MCA2443GA\)](#)  
[MOUSE ANTI BOVINE IgG1 \(MCA2440GA\)](#)  
[MOUSE ANTI BOVINE IgA \(MCA2438GA\)](#)  
[MOUSE ANTI BOVINE IgG \(MCA2439GA\)](#)

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