![Bio-Rad logo]

Datasheet: MCA2441GA

BATCH NUMBER 168348

Description:	MOUSE ANTI BOVINE IgG2
Specificity:	IgG2
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	IL-A73
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	▪			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.

Target Species	Bovine
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 (NaN$_3$)
Carrier Free	Yes

Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Purified bovine IgG2
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the X63.Ag8.653 myeloma cell line
Specificity	**Mouse anti Bovine IgG2, clone IL-A73**, is a monoclonal antibody specific for bovine IgG2 and does not recognise other bovine immunoglobulin classes. While normal serum levels of IgG1 are relatively constant in cattle at around 50%, IgG2 levels are highly variable between different strains and races. Mouse anti Bovine IgG2, clone IL-A73 immunoprecipitates a protein band of approximately 52-59kDa, consistent with the heavy chain of bovine IgG2 (Campbell *et al.* 1998).
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul
References	1. 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. 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. Williams, D.J. *et al.* (1996) The role of anti-variable surface glycoprotein antibody responses in bovine trypanotolerance. Parasite Immunol. 18 (4): 209-18. 4. Hecker, Y.P. *et al.* (2014) A *Neospora caninum* vaccine using recombinant proteins fails to prevent foetal infection in pregnant cattle after experimental intravenous challenge. Vet Immunol Immunopathol. 162 (3-4): 142-53. 5. Dorneles, E.M. *et al.* (2015) Immune Response of Calves Vaccinated with Brucella abortus S19 or RB51 and Revaccinated with RB51. PLoS One. 10 (9): e0136696. 6. Pereyra, R. *et al.* (2019) Evidence of reduced vertical transmission of *Neospora caninum.* associated with higher IgG1 than IgG2 serum levels and presence of IFN-γ in non-aborting chronically infected cattle under natural condition. Vet Immunol Immunopathol. 208: 53-57. 7. Jaramillo, J.O. *et al.* (2019) Immunisation of cattle against *Babesia bovis.* 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. Ticks Tick Borne Dis. 10 (6): 101270. 8. Villa-Mancera, A. *et al.* (2021) Phage display-based vaccine with cathepsin L and excretory-secretory products mimotopes of *Fasciola hepatica.* induces protective cellular and humoral immune responses in sheep. Vet Parasitol. 289: 109340. 9. Di Giacomo, S. *et al.* (2022) Assessment on Different Vaccine Formulation Parameters in the Protection against Heterologous Challenge with FMDV in Cattle. Viruses. 14 (8): 1781.
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.

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/MCA2441GA 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
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
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC

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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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M429754:240424'

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