# Datasheet: MCA627GA

## BATCH NUMBER 173392

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| **Description:** | MOUSE ANTI BOVINE IgG1 |
| **Specificity:** | IgG1 |
| **Format:** | Purified |
| **Product Type:** | Monoclonal Antibody |
| **Clone:** | K37 2G6 |
| **Isotype:** | IgG1 |
| **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 | | | ▪ | |

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.

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| **Target Species** | Bovine |
| **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 ($NaN_3$) |
| **Carrier Free** | Yes |

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| **Approx. Protein Concentrations** | IgG concentration 1.0 mg/ml |
| **Immunogen** | Purified Bovine IgG1. |
| **Fusion Partners** | Spleen cells from immunized mice were fused with cells of the P3.X63.Ag8.653 myeloma cell line |
| **Specificity** | **Mouse anti Bovine IgG1, clone K37 2G6,** recognizes bovine IgG1 and does not cross react with other subclasses.<br>IgG1 along with IgG2 and IgG3 form the three major subclasses of bovine IgG. In bovids, IgG1 constitutes approximately 50% of serum immunoglobulin. IgG1. Unlike many other species, in ruminants and particularly bovids, IgG1 is major immunoglobulin present in milk and colostrum rather than IgA.<br><br>In addition to clone K37 2G6, Bio-Rad offer clone IL-A60, which is also specific to bovine IgG1, along with a wide range of other antibodies specific to various bovine immunoglobulin and immunoglobulin subclasses. |
| **References** | 1. Estes. *et al*. (1998) Effects of type I/type II interferons and transforming growth factor-beta on B-cell differentiation and proliferation. Definition of costimulation and cytokine requirements for immunoglobulin synthesis and expression. Immunology. 95 (4): 604- 611<br>2. McNeilly, T.N. *et al.* (2010) IgA and IgG antibody responses following systemic immunization of cattle with native H7 flagellin differ in epitope recognition and capacity to neutralise TLR5 signalling. Vaccine. 28 (5): 1412-21.<br>3. McNeilly, T.N. *et al.* (2010) Immunization of cattle with a combination of purified intimin-531, EspA and Tir significantly reduces shedding of *Escherichia coli* O157:H7 following oral challenge. Vaccine. 28 (5): 1422-8.<br>4. Soria, I. *et al.* (2018) Immune Response and Partial Protection against Heterologous Foot-and-Mouth Disease Virus Induced by Dendrimer Peptides in Cattle. J Immunol Res. 2018: 3497401.<br>5. Salem, E. *et al.* (2019) Pathogenesis, Host Innate Immune Response, and Aerosol Transmission of Influenza D Virus in Cattle. J Virol. 93(7):e01853-18.<br>6. Noble, A. *et al.* (2024) Development of bovine IgG3-specific assays using a novel recombinant single-domain binding reagent Veterinary Immunology and Immunopathology. : 110852.<br>7. Gilbert, F.B. *et al.* (2024) Expression of FcμR by bovine mononuclear blood leukocytes. Dev Comp Immunol. : 105304. |
| **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.<br><br>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 |

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| **Health And Safety Information** | Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA627GA |
| **Regulatory** | For research purposes only |

## Related Products

### Recommended Secondary Antibodies

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| 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 IgG1 NEGATIVE CONTROL (MCA928)

### Recommended Useful Reagents

MOUSE ANTI BOVINE IgG1:HRP (MCA2440P)
MOUSE ANTI BOVINE IgG1 (MCA2440GA)

**Product inquiries: www.bio-rad-antibodies.com/technical-support**

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M382460:210513'

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