# Datasheet: MCA2171GA

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| **Description:** | MOUSE ANTI CHICKEN MHC CLASS II MONOMORPHIC |
| **Specificity:** | MHC CLASS II MONOMORPHIC |
| **Format:** | Purified |
| **Product Type:** | Monoclonal Antibody |
| **Clone:** | 21-1A6 |
| **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 | ▪ | | | 1/50 - 1/100 |
| 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** | Chicken |
| **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 |

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| **Approx. Protein Concentrations** | IgG concentration 1.0 mg/ml |
| **Immunogen** | Chicken bursa cells |
| **Fusion Partners** | Spleen cells from immunized Balb/c mice were fused with cells of the mouse NS-1 myeloma cell line |
| **Specificity** | **Mouse anti Chicken MHC Class II (monomorphic) antibody, clone 21-1A6**, recognizes a monomorphic determinant on the chicken B-L molecule, the chicken class II major histocompatibility complex (MHC).<br><br>The level of B-L expression is reported to increase during the bursal phase of B cell differentiation (Veromaa *et al.* 1988). |
| **Flow Cytometry** | Use 10µl of the suggested working dilution to label $10^6$ cells in 100µl |
| **References** | 1. Veromaa, T. *et al.* (1988) Expression of B-L and Bu-1 antigens in chickens bursectomized at 60 h of incubation. Eur J Immunol. 18 (2): 225-30.<br>2. Vainio, O. *et al.* (1988) Antigen-presenting cell-T cell interaction in the chicken is MHC class II antigen restricted. J Immunol. 140 (9): 2864-8.<br>3. Silva, A.B. *et al.* (2008) Functional analysis of neuropeptides in avian thymocyte development. Dev Comp Immunol. 32 (4): 410-20.<br>4. Wattrang, E. (2009) Phosphorothioate oligodeoxyribonucleotides induce in vitro proliferation of chicken B-cells. Vet Immunol Immunopathol. 131 (3-4): 218-28.<br>5. Petkov, D.I. *et al.* (2009) Identification and characterization of two distinct bursal B-cell subpopulations following infectious bursal disease virus infection of White Leghorn chickens. Avian Dis. 53 (3): 347-55.<br>6. Pavlova, S.P. *et al.* (2010) *In vitro* and *in vivo* characterization of glycoprotein C-deleted infectious laryngotracheitis virus. J Gen Virol. 91 (Pt 4): 847-57.<br>7. Kamble, N.M. *et al.* (2016) Interaction of a live attenuated *Salmonella gallinarum* vaccine candidate with chicken bone marrow-derived dendritic cells. Avian Pathol. 45 (2): 235-43.<br>8. Kamble, N.M. *et al.* (2016) Activation of chicken bone marrow-derived dendritic cells induced by a *Salmonella Enteritidis* ghost vaccine candidate. Poult Sci. 95 (10): 2274-80.<br>9. Eren, U. *et al.* (2016) The several elements of intestinal innate immune system at the beginning of the life of broiler chicks. Microsc Res Tech. 79 (7): 604-14.<br>10. Jarosz, Ł. *et al. et al.* (2016) Effects of feed supplementation with glycine chelate and iron sulfate on selected parameters of cell-mediated immune response in broiler chickens. Res Vet Sci. 107: 68-74.<br>11. Jarosz, Ł.S. *et al.* (2018) The effect of feed supplementation with a copper-glycine chelate and copper sulphate on selected humoral and cell-mediated immune parameters, plasma superoxide dismutase activity, ceruloplasmin and cytokine concentration in broiler chickens. J Anim Physiol Anim Nutr (Berl). 102 (1): e326-e336.<br>12. Shojadoost, B. *et al.* (2019) Interactions between lactobacilli and chicken macrophages induce antiviral responses against avian influenza virus. Res Vet Sci. 125: 441-50.<br>13. Garrido, D. *et al.* (2018) The role of type I interferons (IFNs) in the regulation of |

chicken macrophage inflammatory response to bacterial challenge. Dev Comp Immunol. 86: 156-70.
14. Yildiz, M. *et al.* (2019) Histological and immunohistochemical studies of the proximal caecum and caecal tonsils of quail (*Coturnix coturnix japonica*). Anat Histol Embryol. 48 (5): 476-85.
15. Eren, U. *et al.* (2022) TLR2 and TLR4 molecules and antigen-presenting cell compositions in cecal tonsils of broiler chicks (*Gallus gallus domesticus.*) in the first two weeks of the post-hatch period. Anat Histol Embryol. 51 (1): 125-135.
16. Saint-Martin, V. *et al.* (2024) The gut microbiota and its metabolite butyrate shape metabolism and antiviral immunity along the gut-lung axis in the chicken. Commun Biol. 7 (1): 1185.
17. Saxena, H.M. and Kaur, P. (2020) Insights into the Identity of the Putative Molecular Target of Infectious Bursal Disease Virus on Chicken Bursal Cells. Acta Scientific Microbiology 3.11 (2020): 61-73.

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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.<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 |
| **Health And Safety Information** | Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2171GA<br>10040 |
| **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 |
| 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 |
| Goat Anti Mouse IgG (H/L) (STAR117...) | Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP |

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