

# Datasheet: MCA5774 BATCH NUMBER 140414

Description:	MOUSE ANTI CHICKEN BETA 2 MICROGLOBULIN
Specificity:	BETA 2 MICROGLOBULIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	F21-21
Isotype:	lgG1
Quantity:	0.25 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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	•			
Immunohistology - Frozen	•			
Immunohistology - Paraffin			•	
ELISA			•	
Immunoprecipitation	•			
Western Blotting				
Functional Assavs			•	

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.

Chicken
Reacts with: Turkey  N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.
Purified IgG - liquid
Purified IgG prepared by ion exchange chromatography from tissue culture supernatant

Buffer Solution	Borate buffered saline.
Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> )
Approx. Protein Concentrations	IgG concentration 0.5mg/ml
External Database Links	UniProt: P21611 Related reagents  Entrez Gene: 414830 B2M Related reagents
RRID	AB_10842663
Specificity	Mouse anti Chicken β2 microglobulin antibody, clone F21-21 recognises chicken β2 microglobulin, a component of MHC class I molecules and is expressed on nearly all nucleated cells.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul.
References	<ol> <li>Pinard, M.H. &amp; Hepkema, B.G. (1993) Biochemical and serological identification of major histocompatibility complex antigens in outbred chickens. Vet Immunol Immunopathol. 39 (4): 407-19.</li> <li>Levy, A.M. et al. (2003) Major histocompatibility complex class I is downregulated in Marek's disease virus infected chicken embryo fibroblasts and corrected by chicken interferon. Comp Immunol Microbiol Infect Dis. 26 (3): 189-98.</li> <li>Dunon, D. et al. (1990) T cell precursor migration towards beta 2-microglobulin is involved in thymus colonization of chicken embryos. EMBO J. 9 (10): 3315-22.</li> <li>Juul-Madsen, H.R. et al. (2004) Influence of early or late start of first feeding on growth and immune phenotype of broilers. Br Poult Sci. 45 (2): 210-22.</li> <li>Skjødt, K. et al. (1986) Isolation and characterization of chicken and turkey beta 2-microglobulin. Mol Immunol. 23 (12): 1301-9.</li> <li>Pickel JM et al. (1990) An avian B-lymphocyte protein associated with beta 2-microglobulin. Immunogenetics. 32 (1): 1-7.</li> <li>Buitenhuis, A.J. et al. (2006) Altered circulating levels of serotonin and immunological changes in laying hens divergently selected for feather pecking behavior. Poult Sci. 85 (10): 1722-8.</li> <li>Juul-Madsen, H.R. et al. (2002) Major histocompatibility complex-linked immune response of young chickens vaccinated with an attenuated live infectious bursal disease virus vaccine in inbred chicken lines with different major histocompatibility complex</li> </ol>

infectious bursal disease virus (IBDV). <u>Immunogenetics. 65 (8): 609-18.</u>

10. Butter, C. *et al.* (2013) The peptide motif of the single dominantly expressed class I molecule of the chicken MHC can explain the response to a molecular defined vaccine of

haplotypes. Poult Sci. 85 (6): 986-98.

- 11. Juul-Madsen, H.R. et al. (2000) Molecular characterization of major and minor MHC class I and II genes in B21-like haplotypes in chickens. Anim Genet. 31 (4): 252-61.
- 12. Møller, L.B. et al. (1991) Variations in the cytoplasmic region account for the heterogeneity of the chicken MHC class I (B-F) molecules. Immunogenetics. 34 (2):
- 13. Wallny, H.J. et al. (2006) Peptide motifs of the single dominantly expressed class I molecule explain the striking MHC-determined response to Rous sarcoma virus in chickens. Proc Natl Acad Sci U S A. 103 (5): 1434-9.
- 14. Walker, B.A. et al. (2011) The dominantly expressed class I molecule of the chicken MHC is explained by coevolution with the polymorphic peptide transporter (TAP) genes. Proc Natl Acad Sci U S A. 108 (20): 8396-401.
- 15. Hepkema, B.G. et al. (1991) Biochemical identification of B-F and B-G allelic variants of the chicken major histocompatibility complex. Anim Genet. 22 (4): 323-32.
- 16. Burgess, S.C. & Davison, T.F. (1999) Counting absolute numbers of specific leukocyte subpopulations in avian whole blood using a single-step flow cytometric technique: comparison of two inbred lines of chickens. J Immunol Methods. 227 (1-2): 169-76.
- 17. Lawson S et al. (2001) Turkey and chicken interferon-gamma, which share high sequence identity, are biologically cross-reactive. Dev Comp Immunol. 25 (1): 69-82.

#### Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

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 microcentrifugation before use.

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12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10077 available at:

https://www.bio-rad-antibodies.com/SDS/MCA5774

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Regulatory

Guarantee

For research purposes only

### Related Products

## **Recommended Secondary Antibodies**

Rabbit Anti Mouse IgG (STAR12...) **RPE** 

Goat Anti Mouse IgG (H/L) (STAR117...) FITC, HRP

Rabbit Anti Mouse IgG (STAR9...)

America

North & South Tel: +1 800 265 7376

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Europe

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Email: antibody\_sales\_uk@bio-rad.com

Email: antibody\_sales\_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M368377:200529'

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