

Datasheet: MCA2478

**BATCH NUMBER 171003**

<b>Description:</b>	MOUSE ANTI DUCK CD4
<b>Specificity:</b>	CD4
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	Du CD4-2
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	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 [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1 - 10 ug/ml
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.

### Target Species

Duck

### Species Cross Reactivity

Reacts with: Goose  
Does not react with: Chicken

**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.

### Product Form

Purified IgG - liquid

### Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture

supernatant

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**Buffer Solution** Phosphate buffered saline

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**Preservative Stabilisers** 0.05% Sodium Azide (NaN<sub>3</sub>)

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**Approx. Protein Concentrations** IgG concentration 1.0mg/ml

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**Immunogen** 293T cells expressing Pekin duck CD4.

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**RRID** AB\_609597

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**Fusion Partners** Spleen cells from immunised Balb/c mice were fused with cells of the SP2/0 mouse myeloma cell line.

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**Specificity** **Mouse anti Duck CD4 antibody, clone Du CD4-2** recognizes Pekin duck CD4, shown to be expressed by thymocytes, splenocytes and peripheral lymphoid cells.

Since the majority of avian immune studies have been carried out on chickens, relatively little is known about the immune system of ducks, though there is a resemblance between the main lymphoid organs, the spleen, thymus and bursa of Fabricius. At the cellular level, studies have shown that like mammalian T cells, duck lymphocytes are responsive to phytohaemagglutinin (PHA), and all cells reacting with clone Du CD4-2 have been identified as CD3<sup>+</sup> T cells ([Kothlow et al. 2005](#)).

Clone Du CD4-2 can be used to identify duck T helper cells. Mouse anti Duck CD4 antibody, clone Du CD4-2 does not appear to react with Mallard.

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**Flow Cytometry** Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.

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**References**

1. Kothlow, S. *et al.* (2005) Characterization of duck leucocytes by monoclonal antibodies. [Dev Comp Immunol. 29 \(8\): 733-48.](#)
2. Yu, X. *et al.* (2012) Attenuated Salmonella typhimurium delivering DNA vaccine encoding duck enteritis virus UL24 induced systemic and mucosal immune responses and conferred good protection against challenge. [Vet Res. 43: 56.](#)
3. Shanmugasundaram, R. and Selvaraj, R.K. (2012) Regulatory T cell properties of thymic CD4(+)CD25(+) cells in ducks. [Vet Immunol Immunopathol. 149: 20-7.](#)
4. Lian, B. *et al.* (2011) Induction of immune responses in ducks with a DNA vaccine encoding duck plague virus glycoprotein C. [Virol J. 8: 214.](#)
5. Huang, J. *et al.* (2014) An attenuated duck plague virus (DPV) vaccine induces both systemic and mucosal immune responses to protect ducks against virulent DPV infection. [Clin Vaccine Immunol. 21: 457-62.](#)
6. Chen, S. *et al.* (2015) Age-related development and tissue distribution of T cell markers (CD4 and CD8a) in Chinese goose. [Immunobiology. pii: S0171-2985\(14\)00289-7.](#)
7. Zhou, H. *et al.* (2016) LPAIV H9N2 Drives the Differential Expression of Goose Interferons and Proinflammatory Cytokines in Both *In Vitro* and *In Vivo* Studies. [Front](#)

[Microbiol. 7: 166.](#)

8. Chen, S. *et al.* (2016) Immune-Related Gene Expression Patterns in GPV- or H9N2-Infected Goose Spleens. [Int J Mol Sci. 17 \(12\): pii: E1990.](#)

9. Zhou H *et al.* (2016) Antigen distribution of TMUV and GPV are coincident with the expression profiles of CD8 $\alpha$ -positive cells and goose IFN $\gamma$ . [Sci Rep. 6: 25545.](#)

10. Cornelissen, J.B. *et al.* (2013) Differences in highly pathogenic avian influenza viral pathogenesis and associated early inflammatory response in chickens and ducks. [Avian Pathol. 42 \(4\): 347-64.](#)

11. Wu, Y. *et al.* (2019) Changes in the small intestine mucosal immune barrier in Muscovy ducklings infected with Muscovy duck reovirus [Veterinary Microbiology. \[Epub ahead of print\].](#)

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**Further Reading** 1. Higgins, D.A. & Teoh, C.S. (1988) Duck lymphocytes. II. Culture conditions for optimum transformation response to phytohaemagglutinin. [J Immunol Methods. 106 \(1\): 135-45.](#)

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**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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**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/MCA2478>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (H/L) (STAR117...) [FITC](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

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Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

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Email: [antibody\\_sales\\_de@bio-rad.com](mailto: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](https://www.bio-rad-antibodies.com/datasheets)

'M367018:200529'

Printed on 19 Jan 2024

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