

Datasheet: MCA2478

BATCH NUMBER 168004

Description:	MOUSE ANTI DUCK CD4
Specificity:	CD4
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	Du CD4-2
Isotype:	IgG2a
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 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	<p>Reacts with: Goose</p> <p>Does not react with: Chicken</p> <p>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.</p>
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 <0.1% Sodium Azide (NaN₃)

Approx. Protein Concentrations IgG concentration 1.0mg/ml

Immunogen 293T cells expressing Pekin duck CD4.

RRID AB_609597

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

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.

Most avian immune research has 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, like mammalian T cells, duck lymphocytes are responsive to phytohaemagglutinin, and all cells reacting with clone Du CD4-2 have been identified as CD3⁺ 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.

Flow Cytometry Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

- 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. 220 \(6\): 753-61.](#)
 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 α -positive cells and goose IFN γ . [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. 233: 85-92.](#)

12. Apinda, N. *et al.* (2022) Simultaneous Protective Immune Responses of Ducks against Duck Plague and Fowl Cholera by Recombinant Duck Enteritis Virus Vector Expressing *Pasteurella multocida* OmpH Gene. [Vaccines \(Basel\). 10 \(8\): 1358.](#)

13. Dandapat, S. *et al.* (2024) Development and evaluation of a chicken embryo fibroblast cell culture based live attenuated Indian strain duck plague vaccine. [Vet Q. 44 \(1\): 1-12.](#)

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.](#)

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/MCA2478>
10040

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

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

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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](https://www.bio-rad-antibodies.com/datasheets)

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