

Datasheet: MCA2478

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 (NaN ₃)
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	<p>Mouse anti Duck CD4 antibody, clone Du CD4-2 recognizes Pekin duck CD4, shown to be expressed by thymocytes, splenocytes and peripheral lymphoid cells.</p> <p>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 <i>et al.</i> 2005).</p> <p>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.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Kothlow, S. <i>et al.</i> (2005) Characterization of duck leucocytes by monoclonal antibodies. Dev Comp Immunol. 29 (8): 733-48. 2. Yu, X. <i>et al.</i> (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. <i>et al.</i> (2011) Induction of immune responses in ducks with a DNA vaccine encoding duck plague virus glycoprotein C. Virolog J. 8: 214. 5. Huang, J. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (2016) LPAIV H9N2 Drives the Differential Expression of Goose Interferons and Proinflammatory Cytokines in Both <i>In Vitro</i> and <i>In Vivo</i> Studies. Front Microbiol. 7: 166. 8. Chen, S. <i>et al.</i> (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.](#)

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>
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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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