Datasheet: MCA2478

BATCH NUMBER 180319

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

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
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.05% 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	**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 $CD3^+$ 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 10^6 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. n*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 CD8α-positive cells and goose IFNγ. 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].

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	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.
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

North & South America Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com
Worldwide Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com
Europe Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 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
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