

Datasheet: MCA1774GA

Description:	MOUSE ANTI DOG CD3
Specificity:	CD3
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	CA17.2A12
Isotype:	IgG1
Quantity:	0.1 mg

Product Details

RRID AB_1125250

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	▪			1/25 - 1/50
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (1)	▪			
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
Immunofluorescence	▪			

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

(1) This product requires antigen retrieval using heat treatment. Citrate buffer, pH 6.0 is recommended for this purpose.

Target Species	Dog
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Affinity enriched TCR/CD3 membrane proteins isolated from thymocytes and the T cell line

External Database Links**UniProt:**

[P27597](#) [Related reagents](#)

Entrez Gene:

[442981](#) CD3E [Related reagents](#)

Specificity

Mouse anti Dog CD3 antibody, clone CA17.2A12 recognizes the canine CD3 cell surface antigen, expressed by thymocytes and mature T lymphocytes. CD3 is engaged in the surface expression of the T-cell antigen receptor (TCR) and the signal transduction pathway resulting from MHC ligand binding to the TCR. CD3 is made up of a number of invariant subchains of the immunoglobulin superfamily.

Mouse anti Dog CD3 clone CA17.2A12 is a valuable flow cytometric and immunohistologic tool for canine lymphoma detection of T-cell origin ([Miniscalco et al. 2003](#)).

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells or 100ul whole blood

References

1. Moore, P.F. and Rossitto, P.V. (1993) Development of monoclonal antibodies to canine T cell receptor complex (TCR/CD3) and their utilisation in the diagnosis of T cell neoplasia. [Vet. Pathol. 30: 457. Abstract 117](#)
2. McDonough, S. P. and Moore, P. F. (2000) Clinical, hematologic, and immunophenotypic characterization of canine large granular lymphocytosis. [Vet Pathol. 37:637-46.](#)
3. Moore, P.F. et al. (2006) Canine hemophagocytic histiocytic sarcoma: a proliferative disorder of CD11d+ macrophages. [Vet Pathol. 43 \(5\): 632-45.](#)
4. Vernau, W and Moore, P. F. (1999) An immunophenotypic study of canine leukemias and preliminary assessment of clonality by polymerase chain reaction. [Vet Immunol Immunopathol. 69:145-64.](#)
5. Moreno, J. et al (1999) The immune response and PBMC subsets in canine visceral leishmaniasis before, and after, chemotherapy. [Vet Immunol Immunopathol. 71:181-95.](#)
6. Machado, G.F. et al. (2011) Intravascular Lymphomatosis in the Central Nervous System of Dogs: Immunohistochemical Investigation in Two Cases [Braz J Vet Pathol 4: 47-51](#)
7. Fellman, C.L. et al. (2011) Cyclosporine A affects the *in vitro* expression of T cell activation-related molecules and cytokines in dogs. [Vet Immunol Immunopathol. 140: 175-80.](#)
8. Watabe, A. et al. (2011) Alterations of lymphocyte subpopulations in healthy dogs with aging and in dogs with cancer. [Vet Immunol Immunopathol. 142: 189-200.](#)
9. Hsiao, Y.W. et al (2004) Tumor-infiltrating lymphocyte secretion of IL-6 antagonizes tumor-derived TGF-beta 1 and restores the lymphokine-activated killing activity. [J Immunol. 172: 1508-14.](#)
10. Huang, Y.C. et al. (2008) CD5-low expression lymphocytes in canine peripheral blood show characteristics of natural killer cells. [J Leukoc Biol. 84: 1501-10.](#)
11. Out, T.A. et al. (2002) Local T-cell activation after segmental allergen challenge in the lungs of allergic dogs. [Immunology. 105: 499-508.](#)
12. Zentek, J. et al. (2002) Morphology and immunopathology of the small and large intestine in dogs with nonspecific dietary sensitivity. [J Nutr. 132: 1652S-4S.](#)
13. Hai, M. et al. (2008) Potential genotoxicity from integration sites in CLAD dogs treated successfully with gammaretroviral vector-mediated gene therapy. [Gene Ther. 15: 1067-71.](#)
14. Altmann, S. et al. (2008) High Mobility Group Box 1-Protein expression in canine haematopoietic cells and influence on canine peripheral blood mononuclear cell proliferative activity [Vet Immunol Immunopathol. 126: 367-72.](#)
15. Ting-De Ravin, S.S. et al. (2006) Correction of canine X-linked severe combined immunodeficiency by in vivo retroviral gene therapy. [Blood. 107: 3091-7.](#)

16. Miranda, S. *et al.* (2007) Characterization of circulating lymphocyte subpopulations in canine leishmaniasis throughout treatment with antimonials and allopurinol. [Vet Parasitol. 144: 251-60.](#)
17. Maiolini, A. *et al.* (2012) Toll-like receptors 4 and 9 are responsible for the maintenance of the inflammatory reaction in canine steroid-responsive meningitis-arteritis, a large animal model for neutrophilic meningitis. [J Neuroinflammation. 9: 226.](#)
18. Aresu, L. *et al.* (2014) VEGF and MMP-9: biomarkers for canine lymphoma. [Vet Comp Oncol. 12: 29-36.](#)
19. Schaut, R.G. *et al.* (2016) Regulatory IgDhi B Cells Suppress T Cell Function via IL-10 and PD-L1 during Progressive Visceral Leishmaniasis. [J Immunol. 196 \(10\): 4100-9.](#)
20. Villaescusa A *et al.* (2012) Evaluation of peripheral blood lymphocyte subsets in family-owned dogs naturally infected by *Ehrlichia canis*. [Comp Immunol Microbiol Infect Dis. 35 \(4\): 391-6.](#)
21. Riondato, F. *et al.* (2016) Analytical and diagnostic validation of a flow cytometric strategy to quantify blood and marrow infiltration in dogs with large B-cell lymphoma. [Cytometry B Clin Cytom. 90 \(6\): 525-530.](#)
22. Byrne, K. *et al.* (2000) A standardized gating technique for the generation of flow cytometry data for normal canine and normal feline blood lymphocytes. [Vet Immunol Immunopathol. 73:167-82.](#)
23. Perosso, J. *et al.* (2014) Alteration of sFAS and sFAS ligand expression during canine visceral leishmaniasis. [Vet Parasitol. 205 \(3-4\): 417-23.](#)
24. Grøndahl-Rosado C *et al.* (2015) NCR1+ cells in dogs show phenotypic characteristics of natural killer cells. [Vet Res Commun. 39 \(1\): 19-30.](#)
25. Miller, J. *et al.* (2015) Humoral and Cellular Immune Response in Canine Hypothyroidism. [J Comp Pathol. 153 \(1\): 28-37.](#)
26. McGill, J.L. *et al.* (2016) Vaccination with an Attenuated Mutant of *Ehrlichia chaffeensis* Induces Pathogen-Specific CD4+ T Cell Immunity and Protection from Tick-Transmitted Wild-Type Challenge in the Canine Host. [PLoS One. 11 \(2\): e0148229.](#)
27. Constantinoiu CC *et al.* (2015) Mucosal tolerance of the hookworm *Ancylostoma caninum* in the gut of naturally infected wild dogs. [Parasite Immunol. Jul 27 \[Epub ahead of print\]](#)
28. Duz, A.L. *et al.* (2014) The TcI and TcII *Trypanosoma cruzi* experimental infections induce distinct immune responses and cardiac fibrosis in dogs. [Mem Inst Oswaldo Cruz. 109 \(8\): 1005-13.](#)
29. Mie, K. *et al.* (2016) Change in peripheral blood lymphocyte count in dogs following adoptive immunotherapy using lymphokine-activated T killer cells combined with palliative tumor resection. [Vet Immunol Immunopathol. 177: 58-63.](#)
30. Schaut, R.G. *et al.* (2016) Recovery of antigen-specific T cell responses from dogs infected with *Leishmania (L.) infantum* by use of vaccine associated TLR-agonist adjuvant. [Vaccine. 34 \(44\): 5225-34.](#)
31. Gelain, M.E. *et al.* (2014) CD44 in canine leukemia: analysis of mRNA and protein expression in peripheral blood. [Vet Immunol Immunopathol. 159 \(1-2\): 91-6.](#)
32. Michael, H.T. *et al.* (2013) Isolation and characterization of canine natural killer cells. [Vet Immunol Immunopathol. 155 \(3\): 211-7.](#)
33. Bonnefont-Rebeix, C. *et al.* (2016) Characterization of a novel canine T-cell line established from a spontaneously occurring aggressive T-cell lymphoma with large granular cell morphology. [Immunobiology. 221 \(1\): 12-22.](#)
34. Schmidli, M.R. *et al.* (2018) Inflammatory pattern of the infrapatellar fat pad in dogs with canine cruciate ligament disease. [BMC Vet Res. 14 \(1\): 161.](#)

Storage

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

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

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet documentation #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Rabbit Anti Mouse IgG (STAR8...) [DyLight®800](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®680](#),
[DyLight®800](#), [FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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