

Datasheet: MCA5916PE

BATCH NUMBER INN1804

Description:	MOUSE ANTI DOG CD25:RPE
Specificity:	CD25
Other names:	IL-2R ALPHA CHAIN
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	P4A10
Isotype:	IgG1
Quantity:	100 TESTS

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	▪			Neat

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	Dog
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution Reconstitute with 1.0 ml distilled water
Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578

Preparation Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution Phosphate buffered saline

Preservative	0.09% Sodium Azide (NaN ₃)
Stabilisers	1% Bovine Serum Albumin 5% Sucrose
Immunogen	Enriched and stimulated Canine T cells.
External Database Links	<p>UniProt: O62802 Related reagents</p> <p>Entrez Gene: 403870 IL2RA Related reagents</p>
Fusion Partners	Spleen cells from immunised RBF/DnJ mice were fused with cells of the mouse P3-653 myeloma cell line.
Specificity	<p>Mouse anti Dog CD25, clone P4A10 recognizes the canine homologue of the human CD25 cell surface antigen, also known as IL-2Rα, a glycoprotein of approximately 55 kDa expressed primarily by activated T lymphocytes (Abrams et al. 2010).</p> <p>The IL-2 receptor is composed of 3 subunits, an α chain (CD25), a β chain (CD122) and a γ chain (CD132), CD25 functions as a low affinity receptor for IL-2.</p> <p>Antibodies to CD4,</p> <p>Mouse anti Human CD25 antibody, clone ACT1, which has demonstrated cross reactivity to canine CD25 (Rissetto et al. 2010). However this clone has poor affinity for canine CD25. The development of clone P4A10 offers a specific monoclonal Mouse anti Canine CD25, demonstrating a greater affinity for canine CD25 than the cross reactive anti human antibody (Abrams et al. 2010).</p> <p>The dog is an important veterinary species in its own right. In addition dogs are used as an animal model in the study of a number of serious human disease states including various forms cancers (Paoloni et al. 2008), and in genetically related diseases of the hemopoietic system (Bauer Jr. et al. 2009).</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. Abrams, V.K. <i>et al.</i> (2010) A novel monoclonal antibody specific for canine CD25 (P4A10): selection and evaluation of canine Tregs. Vet Immunol Immunopathol. 135 (3-4): 257-65. 2. Finn, J.D. <i>et al.</i> (2010) Eradication of neutralizing antibodies to factor VIII in canine hemophilia A after liver gene therapy. Blood.116: 5842-8. 3. Mizutani, N. <i>et al.</i> (2020) Measurement of the concentration of serum soluble interleukin-2 receptor alpha chain in dogs with lymphoma. Vet Immunol Immunopathol. 225: 110054.
Further Reading	1. Rissetto, K.C. <i>et al.</i> (2010) Cloning and expression of canine CD25 for validation of an

- anti-human CD25 antibody to compare T regulatory lymphocytes in healthy dogs and dogs with osteosarcoma. [Vet Immunol Immunopathol. 135 \(1-2\): 137-45.](#)
2. Pinheiro, D. *et al.* (2011) Phenotypic and functional characterization of a CD4(+) CD25(high) FOXP3(high) regulatory T-cell population in the dog. [Immunology. 132 \(1\): 111-22.](#)
3. Bauer, T.R. Jr *et al.* (2009) Potential large animal models for gene therapy of human genetic diseases of immune and blood cell systems. [ILAR J. 50 \(2\): 168-86.](#)
4. Paoloni, M. & Khanna, C. (2008) Translation of new cancer treatments from pet dogs to humans. [Nat Rev Cancer. 8 \(2\): 147-56.](#)

Storage	Prior to reconstitution store at +4°C. After reconstitution store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. 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 #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA5916PE 20487
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

Recommended Useful Reagents

[RAT ANTI DOG CD8 \(MCA1039GA\)](#)

[RAT ANTI DOG CD4 \(MCA1038GA\)](#)

[MOUSE ANTI DOG CD3 \(MCA1774GA\)](#)

[MOUSE ANTI DOG CD3:FITC \(MCA1774F\)](#)

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