

Datasheet: MCA5916F

BATCH NUMBER 170510

Description:	MOUSE ANTI DOG CD25:FITC
Specificity:	CD25
Other names:	IL-2R ALPHA CHAIN
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	P4A10
Isotype:	IgG1
Quantity:	0.1 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	▪			Neat - 1/10

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 Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid						
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>FITC</td> <td>490</td> <td>525</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	FITC	490	525
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
FITC	490	525					
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						
Approx. Protein	IgG concentration 0.1 mg/ml						

Concentrations

Immunogen Enriched and stimulated canine T cells.

External Database Links

UniProt:

[O62802](#) [Related reagents](#)

Entrez Gene:

[403870](#) IL2RA [Related reagents](#)

Fusion Partners Spleen cells from immunized RBF/DnJ mice were fused with cells of the mouse P3-653 myeloma cell line.

Specificity

Mouse anti Dog CD25, clone P4A10 recognizes the canine homologue of the human CD25 cell surface antigen, also known as IL-2R α , a glycoprotein of approximately 55 kDa expressed primarily by activated T lymphocytes ([Abrams et al. 2010](#)).

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.

Antibodies to CD4,

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](#)).

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](#)).

Flow Cytometry Use 10ul of the suggested working dilution to label 10^6 cells in 100ul

References

1. Abrams, V.K. *et al.* (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. *et al.* (2010) Eradication of neutralizing antibodies to factor VIII in canine hemophilia A after liver gene therapy. [Blood.116: 5842-8.](#)
3. Mizutani, N. *et al.* (2020) Measurement of the concentration of serum soluble interleukin-2 receptor alpha chain in dogs with lymphoma. [Vet Immunol Immunopathol. 225: 110054.](#)
4. Wesolowski, M. *et al.* (2023) Long-term changes of Th17 and regulatory T cells in peripheral blood of dogs with spinal cord injury after intervertebral disc herniation. [BMC Vet Res. 19 \(1\): 90.](#)
5. Sheng, R. *et al.* (2023) Prognostic significance of CD25 expression in dogs with a

noninvasive diagnosis of B-cell lymphoma treated with CHOP chemotherapy. [Vet Comp Oncol. 21 \(1\): 28-35.](#)

6. Szydłowski, P. *et al.* (2025) Tregitopes derived from canine proteins can enhance T regulatory lymphocytes frequency in dog peripheral blood mononuclear cells (PBMC) culture *in vitro*. [J Leukoc Biol. 117 \(11\): qiaf143.](#)

7. Foos, K.M. *et al.* (2026) Generation of functional canine TIL products for solid tumors. [Front Immunol. 17: 1810955.](#)

Further Reading

1. Paoloni, M. & Khanna, C. (2008) Translation of new cancer treatments from pet dogs to humans. [Nat Rev Cancer. 8 \(2\): 147-56.](#)

2. 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.](#)

3. Risetto, K.C. *et al.* (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.](#)

4. 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.](#)

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. This product is photosensitive and should be protected from light.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA5916F>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

Recommended Useful Reagents

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

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

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

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

Product inquiries: www.bio-rad-antibodies.com/technical-support

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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