Datasheet: MCA5916PE

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.

<table>
<thead>
<tr>
<th>Applications</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Cytometry</td>
<td></td>
<td></td>
<td></td>
<td>Neat</td>
</tr>
</tbody>
</table>

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 (NaN₃)

Stabilisers
1% Bovine Serum Albumin
5% Sucrose

Immunogen
Enriched and stimulated Canine T cells.

External Database Links
UniProt:
Fusion Partners

Spleen cells from immunised 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-2Ra, 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.

Research has demonstrated that antibodies to CD4, FoxP3 and CD25 may be used in studies of T regulatory cells (Tregs), a unique subset of T helper cells that function in the control of effector cells vital in preventing autoimmunity.

Previous studies of canine Tregs have utilized the mouse anti human CD25 monoclonal 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 now 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 et al. 2009)*. The generation of clone P4A10 provides an improved tool for the identification of canine CD25 and will facilitate studies in this species.

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul

References


Further Reading


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 reconstitution

**Health And Safety Information**
Material Safety Datasheet documentation #10075 available at:

**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)