Store at 4°C

#63448

IL2-Rα/CD25 (PC61.5) Rat mAb (FITC Conjugate)

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New 04/19

Entrez-Gene ID #16184
UniProt ID #P01590

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity	Isotype
F Endogenous	M	Rat IgG1

Description: This Cell Signaling Technology antibody is conjugated to FITC and tested in-house for direct flow cytometric analysis in mouse cells.

Background: Interleukin-2 (IL-2) is a T cell stimulatory cytokine best known for inducing T cell proliferation and NK cell proliferation and activation (1,2). IL-2 also promotes peripheral development of regulatory T cells (Tregs) (3,4). Conversely, IL-2 is involved in the activation-induced cell death (AICD) that is observed post T cell expansion by increasing levels of Fas on $CD4^+$ T cells (5). The effects of IL-2 are mediated through a trimeric receptor complex consisting of IL-2Rα, IL-2Rβ, and the common gamma chain, γc (1,2). IL-2Rα binds exclusively to IL-2 with low affinity and increases the binding affinity of the whole receptor complex including IL-2Rβ and γc subunits. IL-15 also binds to IL-2Rβ (1,2). γc is used by other cytokines including IL-4, IL-7, IL-9, IL-15, and IL-21 (1,2). Binding of IL-2 initiates signaling cascades involving Jak1, Jak3, Stat5, and the PI3K/Akt pathways (1,2).

Specificity/Sensitivity: IL2-Rα/CD25 (PC61.5) Rat mAb (FITC Conjugate) recognizes endogenous levels of total IL2-Rα/CD25 protein. This antibody detects an epitope within the extracellular domain.

Source/Purification: This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.

Storage: Supplied in 10 mM NaH_2PO_4, 150 mM NaCl, 0.09% NaN_3, 0.1% gelatin, pH 7.2. This product is stable for 6 months when stored at 4°C. *Do not aliquot the antibody. Protect from light. Do not freeze.*

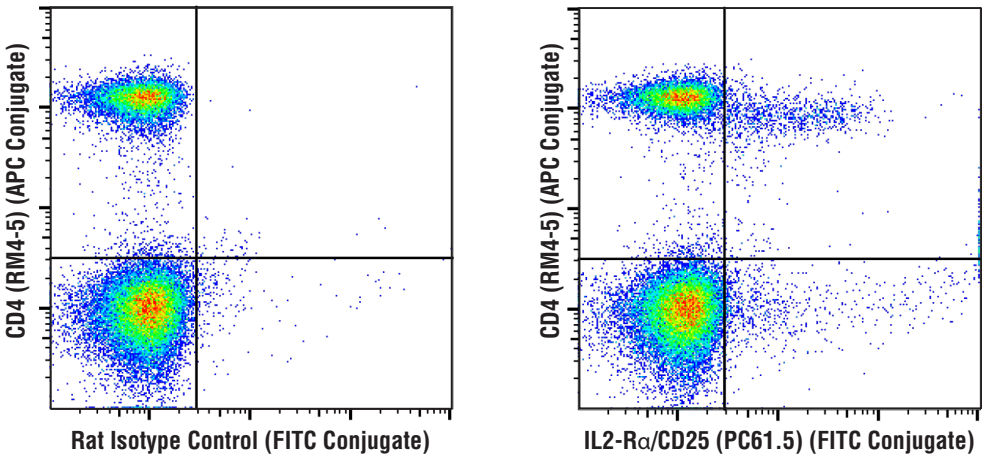
Recommended Antibody Dilutions:

Flow Cytometry	1:400

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

Background References:

(1) Ma, A. et al. (2006) *Annu Rev Immunol* 24, 657-79.
(2) Gaffen, S.L. and Liu, K.D. (2004) *Cytokine* 28, 109-23.
(3) Fehérvari, Z. et al. (2006) *Trends Immunol* 27, 109-11.
(4) Antony, P.A. et al. (2006) *J Immunol* 176, 5255-66.
(5) Jaleco, S. et al. (2003) *J Immunol* 171, 61-8.



Flow cytometric analysis of live mouse splenocytes using IL2-Rα/CD25 (PC61.5) Rat mAb (FITC Conjugate) and co-stained with CD4 (RM4-5) Rat mAb (APC Conjugate) #82116 (right), compared to concentration-matched Rat Isotype Control (FITC Conjugate) (left).

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Applications: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide **Species Cross-Reactivity:** **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—Horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.