## IL2-Rα/CD25 (PC61.5) Rat mAb (APC-Cy7<sup>®</sup> Conjugate)



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## For Research Use Only. Not for Use in Diagnostic Procedures.

<b>Applications:</b> FC-L	<b>Reactivity:</b> M	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rat IgG1 lambda	UniProt ID: #P01590	Entrez-Gene Id: 16184
Product Usage		For optimal flow cytometry results, we recommend 0.25 $\mu g$ of antibody per test.			
Information		<b>Application</b> Flow Cytometry (Live)		<b>Dilution</b> 1:80	
Storage		Supplied in 10 mM NaH $_2$ PO $_4$ , 150 mM NaCl, 0.09% NaN $_3$ , 0.1% gelatin, pH 7.2. This product is stable for 6 months when stored at 4 $^\circ$ C. Do not aliquot the antibody. Protect from light. Do not freeze.			
Specificity/Sensitivity		IL2-R $\alpha$ /CD25 (PC61.5) Rat mAb (APC-Cy7 $^{\otimes}$ Conjugate) recognizes endogenous levels of total IL2-R $\alpha$ /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.			
Description		This Cell Signaling Technology antibody is conjugated to APC-Cy7 $^{\$}$ 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-2R $\alpha$ , IL-2R $\beta$ , and the common gamma chain, yc (1,2). IL-2R $\alpha$ binds exclusively to IL-2 with low affinity and increases the binding affinity of the whole receptor complex including IL-2R $\beta$ and yc subunits. IL-15 also binds to IL-2R $\beta$ (1,2). yc 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).			
Background References		1. Ma, A. et al. (2006) <i>Annu Rev Immunol</i> 24, 657-79. 2. Gaffen, S.L. and Liu, K.D. (2004) <i>Cytokine</i> 28, 109-23. 3. Fehérvari, Z. et al. (2006) <i>Trends Immunol</i> 27, 109-11. 4. Antony, P.A. et al. (2006) <i>J Immunol</i> 176, 5255-66. 5. Jaleco, S. et al. (2003) <i>J Immunol</i> 171, 61-8.			

**Species Reactivity** Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Applications Key** FC-L: Flow Cytometry (Live)

Cross-Reactivity Key M: Mouse

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