

1A-614-C100

## Monoclonal Antibody to CD25 (mouse) Allophycocyanin (APC) conjugated (0.1 mg)

Clone: PC61.5
Isotype: Rat IqG1

Specificity: The rat monoclonal antibody PC61.5 (PC61.5.3) recognizes CD25 (Interleukin-2

receptor alpha chain), a 55 kDa type I transmembrane glycoprotein expressed on activated B and T lymphocytes, activated monocytes/macrophages and on  $\mathrm{CD4}^+\,\mathrm{T}$ 

lymphocytes (T regulatory cells); it is lost on resting B and T lymphocytes.

Regulatory Status: RUO

Immunogen: B6.1 CTL cell line

**Species Reactivity:** Mouse

**Preparation:** The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under

optimum conditions. The conjugate is purified by size-exclusion chromatography.

Concentration: 0.5 mg/ml

Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

Storage / Stability: Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not

use after expiration date stamped on vial label.

**Usage:** The reagent is designed for Flow Cytometry analysis.

Expiration: See vial label

Lot Number: See vial label

Background: CD25 (IL2Ralpha, Tac) is a ligand-binding alpha subunit of interleukin 2 receptor

(IL2R). Together with beta and gamma subunit CD25 constitues the high affinity IL2R, whereas CD25 alone serves as the low affinity IL2R. CD25 expression rapidly increases upon T cell activation. The 55 kDa CD25 molecule is enzymatically cleaved and shed from the cell surface as a soluble 45 kDa s-Tac, whose concentration in serum can be used as a marker of T cell activation. Expression of CD25 indicates the neoplastic phenotype of mast cells. CD25+CD4+ FoxP3+ regulatory cells (Treg cells) play a crucial role in the control of

organ-specific autoimmune diseases.



## PRODUCT DATA SHEET

## References:

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\*Aiba Y, Hirayama F, Ogawa M: Clonal proliferation and cytokine requirement of murine progenitors for natural killer cells. Blood. 1997 Jun 1;89(11):4005-12.

\*Yu CT, Feng MH, Shih HM, Lai MZ: Increased p300 expression inhibits glucocorticoid receptor-T-cell receptor antagonism but does not affect thymocyte positive selection. Mol Cell Biol. 2002 Jul;22(13):4556-66.

\*Wei HX, Chuang YH, Li B, Wei H, Sun R, Moritoki Y, Gershwin ME, Lian ZX, Tian Z: CD4+ CD25+ Foxp3+ regulatory T cells protect against T cell-mediated fulminant hepatitis in a TGF-beta-dependent manner in mice. J Immunol. 2008 Nov 15;181(10):7221-9.

\*Tenorio EP, Olguín JE, Fernández J, Vieyra P, Saavedra R: Reduction of Foxp3+ cells by depletion with the PC61 mAb induces mortality in resistant BALB/c mice infected with Toxoplasma gondii. J Biomed Biotechnol. 2010;2010:786078. \*And many other.

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