Clone: PC61.5
Isotype: Rat IgG1
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 CD4+ 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 Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC.
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. Working concentrations should be determined by the investigator.
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 constitutes 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.
References:


*Kish DD, Gorbachev AV, Fairchild RL: CD8+ T cells produce IL-2, which is required for CD(4+)CD25+ T cell regulation of effector CD8+ T cell development for contact hypersensitivity responses. J Leukoc Biol. 2005 Sep;78(3):725-35.


*And many other.