EXBIO Antibodies

PRODUCT DATA SHEET

1P-614-C100

Monoclonal Antibody to CD25 (mouse) Phycoerythrin (PE) conjugated (0.1 mg)

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 R-Phycoerythrin (PE) 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. Suggested working dilution is 2 µg/ml. Indicated dilution is recommended starting point for use of this product. 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 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.

For laboratory research only, not for drug, diagnostic or other use.

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References:

*Jones CM, Cose SC, Coles RM, Winterhalter AC, Brooks AG, Heath WR, Carbone FR: Herpes simplex virus type 1-specific cytotoxic T-lymphocyte arming occurs within lymph nodes draining the site of cutaneous infection. J Virol. 2000 Mar;74(5):2414-9.
*Kotner J, Tarleton R: Endogenous CD4(+) CD25(+) regulatory T cells have a limited role in the control of Trypanosoma cruzi infection in mice. Infect Immun. 2007 Feb;75(2):861-9.
*Van VQ, Darwiche J, Raymond M, Lesage S, Bouguermouh S, Rubio M, Sarfati M: Cutting edge: CD47 controls the in vivo proliferation and homeostasis of peripheral CD4+ CD25+ Foxp3+ regulatory T cells that express CD103. J Immunol. 2008 Oct 15;181(8):5204-8.
*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.
*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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