

TECHNICAL DATA SHEET

CyFlow™ CD25 FITC Anti-Ms; Clone PC61.5

REF BG913987

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD25
Alternative Names	TAC, p55, IL-2R
Clone	PC61.5
Clonality	monoclonal
Format	FITC
Host / Isotype	Rat / IgG1
Species Reactivity	Mouse
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [0.5 mg/ml]
Immunogen	B6.1 CTL cell line

Specificity

The rat monoclonal antibody PC61.5 (PC61.5.3) recognizes mouse CD25 antigen, a 55 kDa type I transmembrane glycoprotein expressed on activated B and T lymphocytes, activated

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

monocytes/macrophages and on CD4⁺ T lymphocytes (T regulatory cells); it is lost on resting B and T lymphocytes.

Application

The reagent is designed for Flow Cytometry analysis. Working concentrations should be determined by the investigator.

Other usages may be determined from the scientific literature.

Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH $\approx$ 7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

CD25 (IL2R α , Tac) is a ligand-binding α subunit of interleukin 2 receptor (IL2R). Together with β and γ 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

- 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. < PMID: 9166839 >
- 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. < PMID: 10666272 >

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

- 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. < PMID: 12052865 >
- 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. < PMID: 16000396 >
- 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. < PMID: 17101658 >
- 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. < PMID: 18832672 >
- 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. < PMID: 18981144 >
- 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. < PMID: 20037737 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com