

## TECHNICAL DATA SHEET

### CyFlow™ CD25 Purified Anti-Ms; Clone PC61.5

**REF** CN509036



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**For Research Use Only.**

**Not for use in diagnostic or therapeutic procedures.**

### Specifications

<b>Antigen</b>	CD25
<b>Alternative Names</b>	IL2R $\alpha$ , TAC, p55
<b>Clone</b>	PC61.5
<b>Clonality</b>	monoclonal
<b>Format</b>	Purified
<b>Host / Isotype</b>	Rat / IgG1
<b>Species Reactivity</b>	Mouse
<b>Negative Species Reactivity</b>	—
<b>Quantity [Concentration]</b>	0.1 mg [ 1 mg/mL ]
<b>Immunogen</b>	B6.1 CTL cell line

The Safety Data Sheet for this product is available at [www.sysmex-partec.com/services](http://www.sysmex-partec.com/services)

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

## Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunoprecipitation
- Immunohistochemistry (frozen sections)
- Functional assays

## Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH  $\approx$ 7.4, containing 0.09% (w/v) sodium azide.

## Storage and Stability

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

## Background Information

CD25 (IL2R $\alpha$ , 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.

## Warnings










**Non-Hazardous Statement:** This is not considered hazardous by the criteria in 29 CFR 1910.1200 or the General Classification guideline for preparations of the EU.

**Safety Data Sheet Statement:** Important information regarding the safe handling, transport, and disposal of this product is contained in the Safety Data Sheet.

## References

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- 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, Olgún 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 >

## Symbols

	Reagent catalogue number		Contains sufficient for <n> tests
	For Research Use Only. Not for use in diagnostic and therapeutic procedures.		Temperature limitation
	Batch code		Keep away from sunlight
	Manufacturer		Consult accompanying documents
	Use by		