

Anti-Mouse CD25 Antibody, Clone PC61.5, APC



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Antibodies

Rat monoclonal IgG1 antibody against mouse CD25, APC-conjugated

Catalog #60009AZ	100 µg	0.2 mg/mL
#60009AZ.1	25 µg	0.2 mg/mL

Product Description

The PC61.5 antibody reacts with mouse CD25 (low-affinity interleukin-2 receptor α chain or IL-2R α), which is an ~55 kDa type 1 transmembrane glycoprotein expressed on T and B cell progenitors, activated (but not resting) T and B cells, regulatory T (Treg) cells, dendritic cells, and activated monocytes and macrophages. Expression of CD25, together with CD4 and FOXP3, is considered a phenotypic signature for Treg cells. CD25 per se has low affinity for its IL-2 ligand but associates with CD122 (IL-2R β) and CD132 (IL-2R γ) to form the high-affinity IL-2R receptor. CD25 acts to increase the specificity and affinity of IL-2 binding by the receptor and is necessary for receptor clustering and induction of signaling pathways involved in the activation and proliferation of lymphocytes. Binding of the PC61.5 antibody inhibits binding of IL-2 to the low- and high-affinity receptors, which may result in inhibition of IL-2-dependent proliferation. The epitope recognized by PC61.5 is distinct from the IL-2 binding site and from the epitopes recognized by antibodies 7D4 and 3C7.

Target Antigen Name:	CD25
Alternative Names:	IL-2 receptor subunit alpha, IL-2R α , IL-2Ralpha, IL-2-RA, Interleukin-2 receptor subunit alpha, Ly-43, p55, Tac
Gene ID:	16184
Species Reactivity:	Mouse
Host Species:	Rat (OFA)
Clonality:	Monoclonal
Clone:	PC61.5
Isotype:	IgG1, lambda
Immunogen:	IL-2-dependent cytolytic mouse T cell clone B6.1
Conjugate:	APC (Allophycocyanin)

Applications

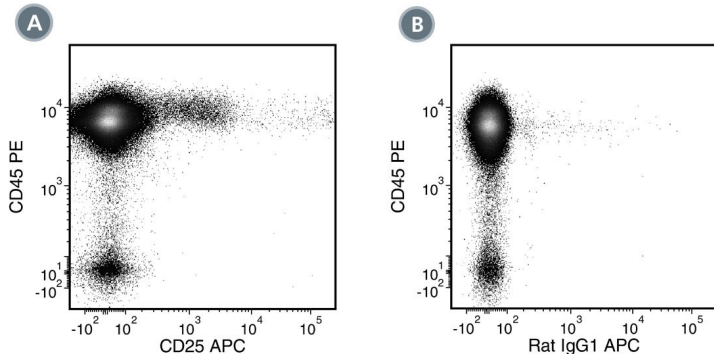
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse T Cell Isolation Kit (Catalog #19851).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.1% gelatin
Purification:	The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions. The solution is free of unconjugated APC.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com .
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 0.125 µg per 1×10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of C57BL/6 mouse splenocytes (gated on lymphocytes) labeled with Anti-Mouse CD25 Antibody, Clone PC61.5, APC and Anti-Mouse CD45 Antibody, Clone 30-F11, PE (Catalog #60030PE).

(B) Flow cytometry analysis of C57BL/6 mouse splenocytes (gated on lymphocytes) labeled with Rat IgG1, kappa Isotype Control Antibody, Clone RTK2071, APC (Catalog #60075AZ) and Anti-Mouse CD45 Antibody, Clone 30-F11, PE.

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Yang J et al. (2014) Near-term anti-CD25 monoclonal antibody administration protects murine liver from ischemia-reperfusion injury due to reduced numbers of CD4⁺ T cells. *PLoS One* 9(9): e106892. (FA/Blocking, FC)
2. Liang D et al. (2012) Role of CD25⁺ dendritic cells in the generation of Th17 autoreactive T cells in autoimmune experimental uveitis. *J Immunol* 188(11): 5785–91. (FA/Blocking, FC)
3. Noris M et al. (2009) The Toll-IL-1R member Tir8/SIGIRR negatively regulated adaptive immunity against kidney grafts. *J Immunol* 183(7): 4249–60. (FA/Depletion, FC)
4. Benson MJ et al. (2007) All-trans retinoic acid mediates enhanced T reg cell growth, differentiation, and gut homing in the face of high levels of co-stimulation. *J Exp Med* 204(8): 1765–74. (FC)
5. Tuve S et al. (2007) Combination of tumor site-located CTL-associated antigen-4 blockade and systemic regulatory T-cell depletion induces tumor-destructive immune responses. *Cancer Res* 67(12): 5929–39. (FA/Depletion, FC)
6. Hayashi T et al. (2001) Elimination of CD4⁺CD25⁺ T cell accelerates the development of glomerulonephritis during the preactive phase in autoimmune-prone female NZB x NZW F1 mice. *Int J Immunol* 86(5): 289–96. (FA/Depletion)
7. Ceredig R et al. (1985) Expression of interleukin-2 receptors as a differentiation marker on intrathymic stem cells. *Nature* 314(7): 98–100. (FA/Blocking, IHC, IP)
8. Lowenthal JW et al. (1985) High and low affinity IL 2 Receptors: Analysis by IL 2 dissociation rate and reactivity with monoclonal anti-receptor antibody PC61. *J Immunol* 135(6): 3988–94. (FA/Blocking)

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