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Anti-Mouse CD127 Antibody, Clone A7R34, PE-Cy7

Rat monoclonal antibody against mouse CD127, PE-Cy7-conjugated

Catalog #100-1630 | 100 µg | 0.2 mg/mL

Product Description

This monoclonal antibody reacts with mouse cluster of differentiation 127 (CD127), a 60 - 90 kDa type I transmembrane glycoprotein involved in the regulation of lymphopoiesis. CD127 is expressed on thymocytes, B cell precursors, T cells, and myeloid cells at the cell surface as a heterodimer with the common gamma chain (also known as CD132). This complex acts as a receptor for interleukin-7 (IL-7), which is an important cytokine in T and B cell development as well as in mature T cell homeostasis. Thymic stromal lymphopoietin (TSLP), a second cytokine, also binds to the receptor complex of CD127 and is involved in trigger activation of dendritic cells, allergy, and autoimmunity. CD127 has been reported to be a useful marker for identifying memory and effector T cells. The A7R34 antibody clone has been shown to block IL-7Rα signaling when administered in vivo.

Target Antigen:	CD127
Alternative Names:	IL-7Ra, Interleukin-7 receptor alpha
Gene ID:	16172
Species Reactivity:	Mouse
Host Species:	Rat
Clonality:	Monoclonal
Clone:	A7R34
Isotype:	IgG2a, kappa
Immunogen:	Mouse IL-7Rα-IgG1 fusion protein
Conjugate:	PE-Cy7 (Phycoerythrin-Cyanine7)

Applications

Verified Applications:	FC
Reported Applications:	FC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; FCXM: Flow cytometric crossmatch assay; FISH: Fluorescence in situ hybridization; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-F: Immunohistochemistry (frozen-tissue); IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; NMR: Nuclear magnetic resonance spectroscopy; RIA: Radioimmunoassay; WB: Western blotting

Properties

Product Formulation:	Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide and 0.1% gelatin
Purification:	The antibody was purified by affinity chromatography and conjugated with PE-Cy7 under optimal conditions. The solution is free of unconjugated PE-Cy7.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 1 µg per 1 x 10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Related Products

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

References

Aloufi NA et al. (2021) Soluble CD127 potentiates IL-7 activity in vivo in healthy mice. Immun Inflamm Dis 9(4): 1798–808.
Carrette F & Surh CD. (2012) IL-7 signaling and CD127 receptor regulation in the control of T cell homeostasis. Semin Immunol 24(3): 209–17.
Crawley AM & Angel JB. (2012) Expression of γ-chain cytokine receptors on CD8+ T cells in HIV infection with a focus on IL-7Rα (CD127). Immunol Cell Biol 90(4): 379–87.
Dikiy S et al. (2021) A distal Foxp3 enhancer enables interleukin-2 dependent thymic Treg cell lineage commitment for robust immune tolerance. Immunity 54(5): 931–46.
Faller EM et al. (2010) Soluble HIV Tat protein removes the IL-7 receptor α-chain from the surface of resting CD8 T cells and targets it for degradation. J Immunol 185(5): 2854–66.
Helou DG et al. (2020) PD-1 pathway regulates ILC2 metabolism and PD-1 agonist treatment ameliorates airway hyperreactivity. Nat Commun 11(1): 3998.
Lim HW & Kim CH. (2007) Loss of IL-7 receptor α on CD4+ T cells defines terminally differentiated B cell-helping effector T cells in a B cell-rich lymphoid tissue. J Immunol 179(11): 7448–56.
Quinci AC et al. (2012) IL-15 inhibits IL-7Rα expression by memory-phenotype CD8+ T cells in the bone marrow. Eur J Immunol 42(5): 1129–39.