

Anti-Mouse CD127 Antibody, Clone A7R34, PE

Rat monoclonal antibody against mouse CD127, PE-conjugated

Catalog #100-1628

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-7Rα, 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 (Phycoerythrin) |

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 under optimal conditions. The solution is free of unconjugated PE.

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 $\leq 1 \mu\text{g}$ per 1×10^6 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-7R α (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-7R α expression by memory-phenotype CD8+ T cells in the bone marrow. *Eur J Immunol* 42(5): 1129–39.

PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2024 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, and Scientists Helping Scientists are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.