abcam

ab210243

Anti-CD127 antibody [A7R34] (PerCP/Cy5.5®)

Anti-CD127 antibody [A7R34] conjugated to PerCP/Cy5.5® - suitable for flow cytometry, and reacts with mouse samples. Clone [A7R34] is a rat monoclonal antibody and one of the most commonly used clones for flow cytometry.

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Key facts

Isotype	IgG2a
Host species	Rat
Conjugation	PerCP/Cy5.5®
Excitation/Emission	Ex: 482nm, Em: 695nm
Storage buffer	pH: 7.2 Preservative: 0.09% Sodium azide Constituents: 0.87% Sodium chloride, 0.12% Sodium dihydrogen phosphate, 0.1% Gelatin
Form	Liquid
Clonality	Monoclonal
Clone number	A7R34
Purification technique	Affinity purification Protein A
Light chain type	kappa
Purification notes	ab210243 was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	Use 0.25 µg.

Target data

See full target information IL7R

Function	Receptor for interleukin-7. Also acts as a receptor for thymic stromal lymphopoietin (TSLP).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Notes

The A7R34 antibody may be used as a phenotypic marker for IL7R alpha (CD127) on immature B cells, on subsets of thymocytes which are double negative (CD4-CD8-) or single positive (CD4+ or CD8+), and at low levels on mature, peripheral T cells.This product or portions thereof is manufactured under license from Carnegie Mellon University under U.S. Patent Number 5, 268, 486 and related patents. Cy® and CyDye® are trademarks of Cytiva.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CD127 also known as IL-7R alpha or IL-7Rα is a protein found on the surface of cells involved in key immune functions. The CD127 protein has an approximate mass of 55-60 kDa. It is a component of the interleukin-7 receptor which also includes the common gamma chain. You can find CD127 expressed on various immune cells like T cells B cells and dendritic cells. As a marker CD127 is an important indicator of T cell maturity and function. Researchers often target CD127 in studies using antibodies in assay formats like ELISA to measure its expression level and function.

Biological function summary	CD127 plays an important role in regulating lymphocyte development and survival. It is part of the IL-7R complex partnering with IL-7 for signal transduction that promotes cell proliferation and survival. This interaction is essential for the development and homeostasis of T cells and B cells. In the absence of proper CD127 signaling lymphocytes may suffer from poor survival impacting overall immune competence. The IL-7-CD127 interaction informs researchers about mechanisms of immune modulation and resilience.
Pathways	CD127 participates in the JAK/STAT signaling pathway which is pivotal for transmitting information from extracellular signals to the cell nucleus influencing gene expression. This pathway plays a vital role in immune cell response. When IL-7 binds to the IL-7R complex on CD127 it initiates a cascade that involves proteins like JAK1 and STAT5. These proteins mediate responses necessary for cell proliferation and differentiation within immune system networks.
Associated diseases and disorders	CD127 has implications in conditions like severe combined immunodeficiency (SCID) and autoimmune diseases. In SCID mutations or defects in CD127 cause impaired T cell development leading to compromised immune function. Additionally CD127 dysregulation can contribute to autoimmune disorders by affecting T regulatory cells creating an imbalance in immune response. Ocrevus a monoclonal antibody therapy used for multiple sclerosis indirectly relates to CD127 by targeting the B cells which rely on IL-7R signaling mechanisms for survival and function. Researchers continue to investigate CD127 to better understand its role in immune-related diseases.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

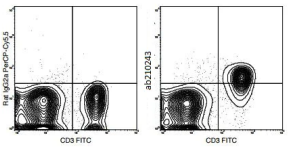
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1 product image



Flow Cytometry - Anti-CD127 antibody [A7R34] (PerCP/Cy5.5®) (ab210243)

CD127 Flow Cytometry staining using rat Anti-CD127 antibody

Flow cytometric analysis of C57Bl/6 splenocytes stained with FITC Anti-Mouse CD3, labeling CD127 with 0.25 µg ab210243 (right panel), compared with 0.25 µg PerCP-Cy5.5 Rat IgG2a isotype control (left panel).

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