

DATASHEET

CD127 Rabbit Polyclonal Antibody

CAT. NO. ARA6728

KEY FEATURES

Target	CD127	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat, Bovine	Clonality	Polyclonal
Applications	WB	Storage	-20°C

BACKGROUND

CD127, also known as the Interleukin-7 receptor alpha chain (IL-7Ralpha), is a type I glycoprotein with a molecular weight of 75-80 kDa. It forms a multi-functional receptor complex with CD132, the common gamma chain, to create the IL-7 receptor (IL-7R), which is crucial for lymphopoiesis. The active IL-7 receptor is an alpha/gamma chain heterodimer, where the gamma chain also associates with the interleukin-2 receptor and primarily activates signal transduction, while the alpha chain determines specific signaling events through its association with cytoplasmic signaling molecules. CD127 is expressed by immature B cells through the early pre-B stage, thymocytes during various stages of development, and most mature T cells, with transient down-regulation upon activation. It promotes the proliferation of precursor B cells, thymocytes, T cell progenitors, and mature CD4+ and CD8+ T cells. Binding of IL-7 to CD127 results in signal transduction through several tyrosine kinase pathways, including the Jak/STAT pathway, and is indispensable for lymphocyte development and the control of homeostatic proliferation of T cells in the periphery. Additionally, IL-7R signaling is involved in the regulation of T cell receptor (TCR) locus rearrangement in gamma delta T cells. Interestingly, CD127 expression is down-regulated on CD4+CD25+ regulatory T cells (T regs). While CD4 and CD25 co-expression is commonly used to identify T regs, this method may include cells without suppressive activity. CD4+CD25+ cells that have down-regulated CD127 expression are significantly enriched for the regulatory T cell population, as defined by the expression of the T reg-specific transcription factor Foxp3 and their suppressive activity in vitro. Diseases associated with CD127 dysfunction include severe combined immunodeficiency and T cell negative/B cell negative/NK positive severe combined immunodeficiency.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
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*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human CD127. The exact sequence is proprietary
Purification	The antibody was purified by immunogen affinity chromatography
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide
Gene Symbol	IL7R
Alternative Names	Interleukin-7 receptor subunit alpha; IL-7 receptor subunit alpha; IL-7R subunit alpha; IL-7R-alpha; IL-7RA; CDw127; CD127
Entrez Gene (Human)	3575;
Entrez Gene (Mouse)	16197;
SwissProt (Human)	P16871;
SwissProt (Mouse)	P16872;

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

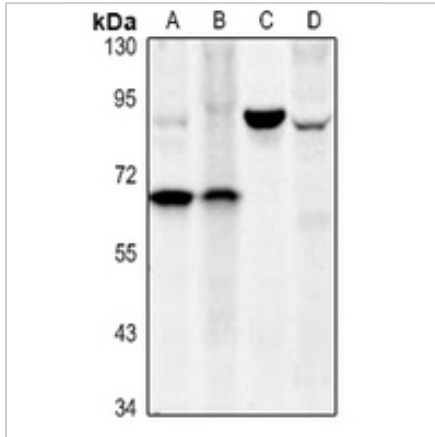
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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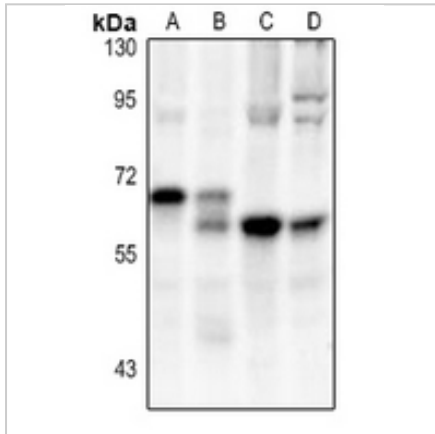
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DATA



Western blot analysis of CD127 expression in SKOV3 (A), HEK293T (B), rat kidney (C), mouse testis (D) whole cell lysates. (Predicted band size: 51 kD; Observed band size: 68; 90 kD)



Western blot analysis of CD127 expression in A549 (A), SGC7901 (B), C6 (C), CT26 (D) whole cell lysates.

STORAGE

Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.

More information: www.arexio.com