

CD127 Monoclonal Antibody (eBioRDR5), Functional Grade, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioRDR5
Conjugate	Functional Grade
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	no preservative
Storage conditions	4° C
RRID	AB_657601

Applications	Tested Dilution	Publications
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Flow Cytometry (Flow)	0.06 µg/test	15 Publications
Functional Assay (FN)	Assay-Dependent	-
Control (Ctrl)	Assay-Dependent	-

Product Specific Information

Description: The eBioRDR5 monoclonal antibody reacts with human CD127 (Interleukin-7 Receptor alpha). CD127 complexes with CD132, also known as the common gamma chain (gamma c), to form the multi-functional IL-7 receptor (IL-7R). CD127 is a type I glycoprotein with a molecular weight of 75-80 kDa and is expressed by immature B cells through the early pre-B stage, by thymocytes during several stages of their development, and on most mature T cells, with transient down-regulation upon activation. Binding of IL-7 results in signal transduction which occurs through several tyrosine kinase pathways including the Jak /STAT pathway. IL-7 is indispensable for the development of lymphocytes, and the control of homeostatic proliferation of T-cells in the periphery. In addition, IL-7R signaling is known to be involved in the regulation of T cell receptor (TCR) locus rearrangement in gamma delta T cells.

Interestingly, recently it has been demonstrated that CD127 expression is down-regulated on CD4+CD25+ regulatory T cells (T regs). While the co-expression of CD4 and CD25 has become widely used as an indicator of T regs, this method of identification may also include cells without suppressive activity. It has clearly been shown that CD4+CD25+ cells that have down-regulated the expression of CD127 are significantly more highly-enriched for the regulatory T population, as defined by expression of the T reg-

specific transcription factor Foxp3 and the suppressive activity of these cells, in vitro.

Binding of the eBioRDR5 monoclonal antibody to PBMCs is blocked by pre-incubation of the cells with recombinant human IL-7 (cat. 14-8079).

Applications Reported: This eBioRDR5 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This eBioRDR5 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at less than or equal to 0.06 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Storage and handling: Use in a sterile environment.

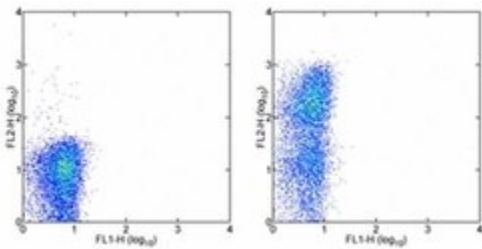
Filtration: 0.2 µm post-manufacturing filtered.

Purity: Greater than 90%, as determined by SDS-PAGE.

Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.

Aggregation: Less than 10%, as determined by HPLC.

Product Images For CD127 Monoclonal Antibody (eBioRDR5), Functional Grade, eBioscience™



CD127 Antibody (16-1278-82) in Flow

Staining of normal human peripheral blood mononuclear cells with 0.5 µg of Mouse IgG1 kappa Isotype Control Purified (Product # 14-4714-82) (left) or 0.06 µg of Anti-Human CD127 Purified (right) followed by Anti-Mouse IgG PE (Product # 12-4010-82). Cells in the lymphocyte gate were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

16 References

Immunohistochemistry (Frozen) (1)

Journal of immunology (Baltimore, Md. : 1950)

Loss of IL-7 receptor alpha on CD4+ T cells defines terminally differentiated B cell-helping effector T cells in a B cell-rich lymphoid tissue.

Authors: Lim HW, Kim CH

Species
Not Applicable

Dilution
Not Cited

Year
2007

Flow Cytometry (15)

PloS one

Undernutrition is associated with perturbations in T cell-, B cell-, monocyte- and dendritic cell- subsets in latent Mycobacterium tuberculosis infection.

"16-1278 was used in Flow cytometry/Cell sorting to demonstrate that coexistent undernutrition in LTBI is characterized by the occurrence of a significant modulation in the frequency of innate and adaptive immune cell subsets."

Authors: Rajamanickam A, Munisankar S, Dolla CK, Babu S

Species
Human

Dilution
Not Cited

Year
2020

Cell reports

Activation of miR-21-Regulated Pathways in Immune Aging Selects against Signatures Characteristic of Memory T Cells.

"Published figure using CD127 monoclonal antibody (Product # 16-1278-82) in Flow Cytometry"

Authors: Kim C, Hu B, Jadhav RR, Jin J, Zhang H, Cavanagh MM, Akondy RS, Ahmed R, Weyand CM, Goronzy JJ

Species
Not Applicable

Dilution
Not Cited

Year
2018

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More applications with references on thermofisher.com

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