CD127 Monoclonal Antibody (eBioRDR5), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human
Published Species	Non-human primate, Human, Mouse, Rhesus monkey
Host/Isotype	Mouse / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	eBioRDR5
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_657591

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	2 Publications
Flow Cytometry (Flow)	0.5 µg/test	16 Publications

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 indispensible for the development of lymphocytes, and the control of homeostatic proliferation of T-cells in the periphery. In addition, IL-7R signaling is know 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 0.5 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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

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

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

Filtration: 0.2 µm post-manufacturing filtered.

19 References

Immunohistochemistry (1)

Frontiers in immunology

Differentially Expressed Potassium Channels Are Associated with Function of Human Effector Memory CD8$^+$ T Cells.

"Published figure using CD127 monoclonal antibody (Product # 14-1278-82) in Immunohistochemistry"

Authors: Sim JH,Kim KS,Park H,Kim KJ,Lin H,Kim TJ,Shin HM,Kim G,Lee DS,Park CW,Lee DH,Kang I,Kim SJ,Cho CH, Doh J,Kim HR

Species
Not Applicable

Dilution
Not Cited

Year
2019

Immunohistochemistry (Frozen) (2)

Molecular therapy : the journal of the American Society of Gene Therapy

CD28 costimulation Impairs the efficacy of a redirected t-cell antitumor attack in the presence of regulatory t cells which can be overcome by preventing Lck activation.

"14-1278 was used in Immunohistochemistry on frozen tissues to investigate a novel method which may expedite the implementation of adoptive T-cell therapy in cancer patients."

Authors: Kofler DM,Chmielewski M,Rappl G,Hombach A,Riet T,Schmidt A,Hombach AA,Wendtner CM,Abken H

Species
Human

Dilution
1:10

Year
2011

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 (16)

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 # 14-1278-82) 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

View more Flow references on thermofisher.com

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