

CD127 Monoclonal Antibody (eBioRDR5), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human
Published Species	Non-human primate, Mouse, Human, 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	23 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 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 (Product # 14-1079-80).

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 10⁵ to 10⁸ 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.

26 References

Immunohistochemistry (1)

<p>Frontiers in immunology</p> <p>Differentially Expressed Potassium Channels Are Associated with Function of Human Effector Memory CD8⁺ T Cells.</p> <p>"Published figure using CD127 monoclonal antibody (Product # 14-1278-82) in Immunohistochemistry"</p> <p>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</p>	<p>Year</p> <p>2019</p>
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Immunohistochemistry (Frozen) (2)

<p>Molecular therapy : the journal of the American Society of Gene Therapy</p> <p>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.</p> <p>"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."</p> <p>Authors: Kofler DM,Chmielewski M,Rappl G,Hombach A,Riet T,Schmidt A,Hombach AA,Wendtner CM,Abken H</p>	<p>Year</p> <p>2011</p> <p>Species</p> <p>Human</p> <p>Dilution</p> <p>1:10</p>
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<p>Journal of immunology (Baltimore, Md. : 1950)</p> <p>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.</p> <p>Authors: Lim HW,Kim CH</p>	<p>Year</p> <p>2007</p>
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Flow Cytometry (23)

<p>Frontiers in immunology</p> <p>Epinephrine Production in Th17 Cells and Experimental Autoimmune Encephalitis.</p> <p>"14-1278-82 was used in Flow Cytometry to show that phenylethanol N-methyltransferase (PNMT), a rate-limiting enzyme of epinephrine synthesis, is specifically expressed in vitro in differentiated TH17 cells and in tissue-resident TH17 cells."</p> <p>Authors: Yang P,Tian H,Zou YR,Chambon P,Ichinose H,Honig G,Diamond B,Kim SJ</p>	<p>Year</p> <p>2021</p> <p>Species</p> <p>Mouse</p>
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