

# CD127 Monoclonal Antibody (eBioRDR5), PE-Cyanine7, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Published Species	Human, Mouse
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), PE-Cyanine7, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioRDR5
Conjugate	PE-Cyanine7
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin, 0.2% BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_1659672

Applications	Tested Dilution	Publications
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Flow Cytometry (Flow)	5 µL (0.5 µg)/test	30 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

(cat. 14-8079).

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

**Applications Tested:** This eBioRDR5 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5  $\mu$ L (0.5  $\mu$ g) per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from  $10^5$  to  $10^8$  cells/test.

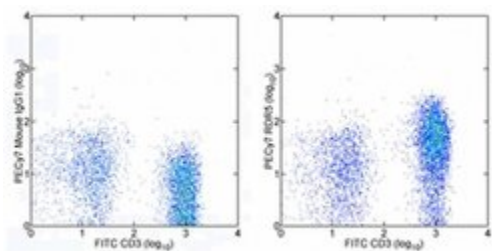
**Light sensitivity:** This tandem dye is sensitive photo-induced oxidation. Please protect this vial and stained samples from light.

**Fixation:** Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100  $\mu$ L cell sample + 100  $\mu$ L IC Fixation Buffer) or 1-step Fix /Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

**Excitation:** 488-561 nm; **Emission:** 775 nm; **Laser:** Blue Laser, Green Laser, Yellow-Green Laser.

**Filtration:** 0.2  $\mu$ m post-manufacturing filtered.

## Product Images For CD127 Monoclonal Antibody (eBioRDR5), PE-Cyanine7, eBioscience™



### CD127 Antibody (25-1278-42) in Flow

Staining of normal human peripheral blood cells with Anti-Human CD3 FITC (Product # 11-0037-42) and Mouse IgG1 K Isotype Control PE-Cyanine7 (Product # 25-4714-80) (left) or Anti-Human CD127 PE-Cyanine7 (right). Cells in the lymphocyte gate were used for analysis.

## 31 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 (30)

Cell

#### The Immunology of Multisystem Inflammatory Syndrome in Children with COVID-19.

"25-1278 was used in Flow cytometry/Cell sorting to show that inflammatory response in MIS-C differs from the cytokine storm of severe acute COVID-19 and shares several features with Kawasaki disease, but also significant differences."

Authors: Consiglio CR, Cotugno N, Sardh F, Pou C, Amodio D, Rodriguez L, Tan Z, Zicari S, Ruggiero A, Pascucci GR, Santilli V, Campbell T, Bryceson Y, Eriksson D, Wang J, Marchesi A, Lakshmikanth T, Campana A, Villani A, Rossi P, Landegren N, Palma P, Brodin P

**Species**  
Human

**Dilution**  
Not Cited

**Year**  
2020

Genes & development

#### JAK2 is dispensable for maintenance of JAK2 mutant B-cell acute lymphoblastic leukemias.

Authors: Kim SK, Knight DA, Jones LR, Vervoort S, Ng AP, Seymour JF, Bradner JE, Waibel M, Kats L, Johnstone RW

**Species**  
Human

**Dilution**  
Not Cited

**Year**  
2018

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### More applications with references on thermofisher.com

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