

TECHNICAL DATA SHEET

APC Anti-Human CD127 (IL-7Ra) (R34-34)

Catalog Number: 20-1278

PRODUCT INFORMATION

Contents: APC Anti-Human CD127 (IL-7Ra) (R34-34)

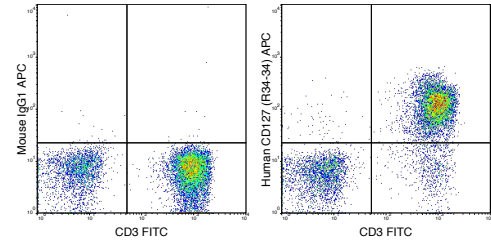
Isotype: Mouse IgG1, kappa

Concentration: 5 uL (0.5 ug)/test

Clone: R34-34

Reactivity: Human

Formulation: 10 mM NaH₂PO₄, 150 mM NaCl, 0.09% Na₃N, 0.1% gelatin, pH7.2



Human peripheral blood lymphocytes were stained with FITC Anti-Human CD3 (35-0038) and 5 uL (0.5 ug) APC Anti-Human CD127 (20-1278) (right panel) or 0.5 ug APC Mouse IgG1 isotype control (left panel).

DESCRIPTION

The R34-34 antibody is specific for human CD127, a cell surface protein also known as the Interleukin-7 Receptor alpha chain, or IL-7R alpha. CD127 is typically expressed at the cell surface as a heterodimer with the common gamma chain (CD132). This complex acts as the functional receptor for IL-7, a cytokine important in T and B cell development, and in mature T cell homeostasis. A second cytokine known as Thymic Stromal Lymphopoietin (TSLP) also binds to a receptor complex of CD127 and the TSLPR chain to trigger activation of dendritic cells, and is involved in B cell development, allergy and autoimmunity. The R34-34 antibody may be used as a phenotypic marker for CD127 on immature B cells, on subsets of thymocytes which are double negative (CD4-CD8-) or single positive (CD4+ or CD8+), and at low levels on mature, peripheral T cells. CD127 is a key marker, when used in combination with CD4 and CD25, to distinguish Treg and effector/memory Treg populations known as T(REM), whereas certain populations of Foxp3+ /CD25+ T cells lacking CD127 have been associated with impaired suppressive function (Bikker et al. 2012. *Rheumatology*, 51: 996-1005)

PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

APPLICATION NOTES

This antibody preparation has been pre-titrated and quality-tested for flow cytometry using an appropriate cell type. The antibody has been diluted for use at 5 uL per test, defined as the amount of antibody that will stain a cell sample in a final volume of approximately 100 uL. The number of cells within a sample should be determined empirically, but typically ranges between 1x10⁵ to 1x10⁸ cells.

REFERENCES

Bikker A, Moret FM, Kruijze AA, Bijlsma JWJ, Lafeber FPJG, and van Roon JAG. 2012. *Rheumatology*. 51: 996-1005. (Flow Cytometry). Hidalgo L, Martinez VG, Valencia J, Hernandez-Lopez C, Vazquez MN, Nunez JR, Zapata AG, Sacedon R, Varas A, and Vicente A. 2012. *Blood*. 119: 1861-1871. (Flow Cytometry). Ansari AA, Reimann KA, Mayne AE, Takahashi Y, Stephenson ST, Wang R, Wang X, Li J, Price AA, Little DM, Zaidi M, Lyles R and Villinger F. 2011. *J. Immunol*. 186: 1044-1059. (Flow Cytometry).