

**APC anti-human CD360 (IL-21R)**

**Catalog # / Size:** 2339040 / 100 tests  
2339035 / 25 tests

**Clone:** 2G1-K12

**Isotype:** Mouse IgG1,  $\kappa$

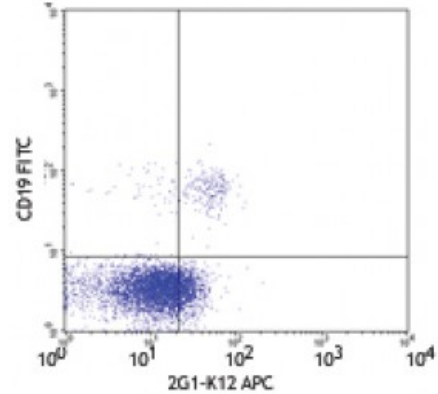
**Immunogen:** IL-21R transfected Ba/F3 cells

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions. The solution is free of unconjugated APC and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**Concentration:** Lot-specific

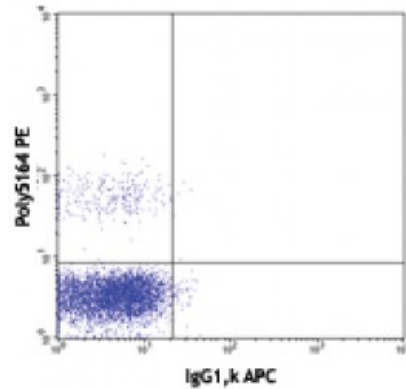


Human peripheral blood lymphocytes stained with CD19 FITC and 2G1-K12 APC (top) or mouse IgG1,  $\kappa$  APC isotype control(bottom)

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microl to 5 microl per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microl staining volume or per 100 microl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.



- Application References:**
- Rodrigues-Bayona B, *et al.* 2012. *J. Immunol.* 188:1578. [PubMed](#)
  - Kotlarz D, *et al.* 2013. *J Exp Med.* 210:433. [PubMed](#).

**Description:** The human interleukin 21 receptor (IL-21R), is a single pass type I membrane protein and a member of the type I cytokine receptor family. Of the type I cytokine receptors, IL-21R exhibits the greatest extracellular homology to the IL-2R  $\beta$  subunit, i.e., contains one copy of the WSXWS-containing cytokine-binding domain. Intracellular domains of IL-21R include the Box 1 and Box 2 elements which are similar to the IL-9R intracellular region. Upon binding IL-21, the IL-21R forms a heterodimer with the common gamma subunit (CD132) and induces Jak/Stat signaling. IL-21R is expressed on B cells and at various levels on NK and T cells. IL-21 is a potent immunomodulatory cytokine mainly produced by NKT and CD4 T-cells (particularly the inflammatory Th17 subset) and has pleiotropic effects on both innate and adaptive immune responses. These actions include positive effects such as enhanced proliferation of natural killer (NK) cells and cytotoxic T cells that can destroy virally infected or cancerous cells and direct inhibitory effects on the antigen-presenting function of dendritic cells. It can also

be proapoptotic for B cells and NK cells. Recent studies have shown that IL-21 is also an autocrine cytokine that potently induces Th17 differentiation and suppresses Foxp3 expression, and serves as a target for treating inflammatory diseases.

**Antigen**  
**References:**

1. Parish-Novak J, *et al.* 2000. *Nature* 408:57.
2. Ozaki K, *et al.* 2000. *Proc Natl. Acad. Sci. USA.* 97:11439.
3. Dumoutier L, *et al.* 2000. *Proc Natl. Acad. Sci. USA.* 97:10144.