

Brilliant Violet 421™ anti-human CD360 (IL-21R)

Catalog # / Size: 2397545 / 25 tests
2397550 / 100 tests

Clone: 17A12

Isotype: Mouse IgG1, κ

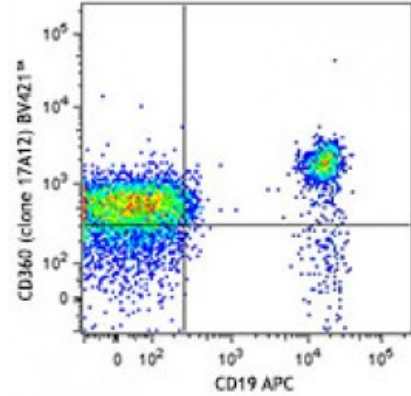
Immunogen: Human IL-21R expressing mouse M1-T22 cell line.

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 421™ and unconjugated antibody.

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

Concentration: Lot-specific

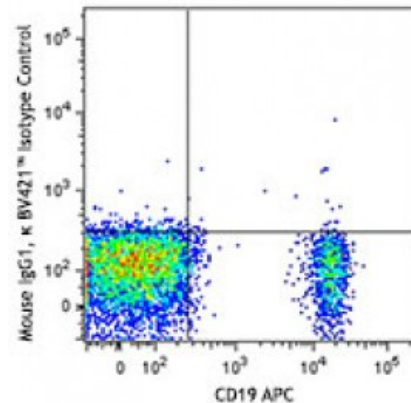


Human peripheral blood lymphocytes were stained with CD19 APC and CD360 (IL-21R) Brilliant Violet™ 421 (clone 17A12, top) or mouse IgG1, κ Brilliant Violet™ 421 isotype control (bottom).

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.



Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.

Application Notes: Additional reported applications (for the relevant formats) include: immunofluorescent surface staining1.

Application References: 1. Bannantine J, *et al.* 2011. *Front Microbiol.* 2:163. (IF)

Description: 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 greatest extracellular homology to the IL-2R β subunit (i.e., it 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, 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, and can be proapoptotic for B cells and NK cells. 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. Parrish-Novak J, *et al.* 2002. *J. Leukocyte Biol.* 72:856.
2. de Toter D, *et al.* 2006. *Blood* 107:3708.
3. Asao H, *et al.* 2001. *J. Immunol.* 167:1.
4. Davis ID,