

**Brilliant Violet 421™ anti-human CD124 (IL-4Rα)**

**Catalog # /** 2375070 / 100 tests  
**Size:** 2375065 / 25 tests

**Clone:** G077F6

**Isotype:** Mouse IgG2a, κ

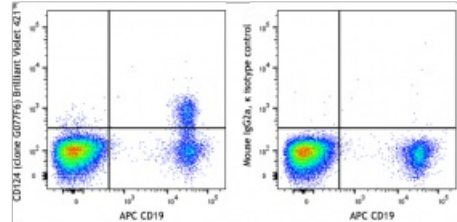
**Immunogen:** Recombinant human IL-4Rα Fc chimera

**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 anti-human CD124 (IL-4Rα) (clone G077F6) Brilliant Violet 421™ (left) or mouse IgG2a, κ Brilliant Violet 421™ isotype control (right).

**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 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.

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.

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**Description:** CD124, also known as the alpha subunit of IL-4R, is a 140 kD transmembrane glycoprotein. It associates with either the common  $\gamma$ -chain (CD132) to form the type I IL-4R complex, which specifically binds IL-4, or with IL-13Ra1 to form the type II IL-4R heterodimeric complex, which binds and transduces signals from either IL-4 or IL-13. A truncated form of IL-4R $\alpha$  exists in the soluble form in biological fluids. CD124 is expressed on human B and T cells as well as a variety of other hematopoietic and non-hematopoietic cells and cell lines. In B cells, CD124 can bind with IL-4 and IL-13 to regulate IgE antibody production. In T cells, the type I IL-4R (IL-4R/gC) is mostly responsible for Th2 cell expansion by mediating IL-4-dependent activation of the transcription factors in hematopoietic cells. The type II IL-4R (IL-4R/IL-13Ra1) is the main route for non-hematopoietic cell responses to IL-4 or IL-13.

**Antigen**  
**References:**

1. Kashiwada M, *et al.* 2001. *J. Immunol.* 167:6382.
2. Gilmour J, *et al.* 2008. *Immunology* 124:437.
3. Hage T, *et al.* 1999. *Cell* 97:271.