

## APC anti-human CD124 (IL-4R $\alpha$ ) Antibody

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| <b>Catalog# / Size</b>   | 355005 / 25 tests<br>355006 / 100 tests   |
| <b>Clone</b>             | G077F6  |
| <b>Regulatory Status</b> | RUO   |
| <b>Other Names</b>       | IL-4 receptor $\alpha$ subunit  |
| <b>Isotype</b>           | Mouse IgG2a, $\kappa$   |
| <b>Description</b>       | 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. |

### Product Details

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| <b>Verified Reactivity</b>    | Human  |
| <b>Antibody Type</b>          | Monoclonal   |
| <b>Host Species</b>           | Mouse  |
| <b>Immunogen</b>              | Recombinant human IL-4R $\alpha$ Fc chimera  |
| <b>Formulation</b>            | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)  |
| <b>Preparation</b>            | The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions.   |
| <b>Concentration</b>          | Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)   |
| <b>Storage &amp; Handling</b> | The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>  |
| <b>Application</b>            | <a href="#">FC - Quality tested</a>  |
| <b>Recommended Usage</b>      | Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 $\mu$ l per million cells in 100 $\mu$ l staining volume or 5 $\mu$ l per 100 $\mu$ l of whole blood.                                   |
| <b>Excitation Laser</b>       | Red Laser (633 nm)   |
| <b>Product Citations</b>      | <ol style="list-style-type: none"><li>Grabosch S, <i>et al.</i> 2017. Gynecologic Oncology. 10.1016/j.ygyno.2017.04.008. <a href="#">PubMed</a></li><li>Lee J, <i>et al.</i> 2017. PLoS One.. 10.1371/journal.pone.0183594. <a href="#">PubMed</a></li><li>Bi CS, <i>et al.</i> 2020. Cell Prolif. 53:e12827. <a href="#">PubMed</a></li></ol> |
| <b>RRID</b>                   | AB_2562506 (BioLegend Cat. No. 355005)<br>AB_2562507 (BioLegend Cat. No. 355006)   |

### Antigen Details

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| <b>Structure</b> | 140 kD type I transmembrane glycoprotein, associates with common $\gamma$ chain or IL-13 receptor alpha-1 subunit |
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| <b>Distribution</b>       | B cells, T cells, endothelial cells, cancer cells  |
| <b>Function</b>           | Regulates IgE antibody production in B cells, Th2 cell expansion, and IL-4 or IL-13 induced response in non-hematopoietic cells  |
| <b>Interaction</b>        | STAT6  |
| <b>Ligand/Receptor</b>    | IL-4, IL-13  |
| <b>Cell Type</b>          | B cells, Endothelial cells, T cells  |
| <b>Biology Area</b>       | Apoptosis/Tumor Suppressors/Cell Death, Cell Biology, Immunology, Signal Transduction, Transcription Factors   |
| <b>Molecular Family</b>   | CD Molecules, Cytokine/Chemokine Receptors   |
| <b>Antigen References</b> | <ol style="list-style-type: none"> <li>1. Kashiwada M, <i>et al.</i> 2001. <i>J. Immunol.</i> 167:6382.</li> <li>2. Gilmour J, <i>et al.</i> 2008. <i>Immunology</i> 124:437.</li> <li>3. Hage T, <i>et al.</i> 1999. <i>Cell</i> 97:271.</li> </ol> |
| <b>Gene ID</b>            | <a href="#">3566</a>   |

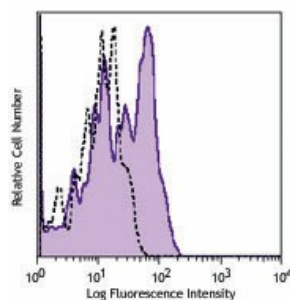
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

Purified anti-human CD124 (IL-4R $\alpha$ ), PE anti-human CD124 (IL-4R $\alpha$ ), APC anti-human CD124 (IL-4R $\alpha$ ), PE/Cyanine7 anti-human CD124 (IL-4R $\alpha$ ), TotalSeq™-C0363 anti-human CD124 (IL-4R $\alpha$ ), Brilliant Violet 421™ anti-human CD124 (IL-4R $\alpha$ ), PerCP/Cyanine5.5 anti-human CD124 (IL-4R $\alpha$ ), TotalSeq™-B0363 anti-human CD124 (IL-4R $\alpha$ ), PE/Dazzle™594 anti-human CD124 (IL-4R $\alpha$ )

## Product Data



Human peripheral blood lymphocytes were stained with CD19 FITC and CD124 (clone G077F6) APC (filled histogram) or mouse IgG2a,  $\kappa$  isotype control APC (dashed histogram). The data was analyzed by gating on CD19-positive cells.

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