

## PE anti-mouse IL-4 Antibody

<b>Catalog# / Size</b>	504103 / 25 µg 504104 / 100 µg
<b>Clone</b>	11B11
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Interleukin-4, Ia inducing factor (IaIF), B cell stimulating factor-1 (BSF-1), Hodgkin's cell growth factor (HCGF), Mast cell growth factor-2 (MCGF-2), Macrophage fusion factor (MFF), T cell growth factor-2 (TCGF-2)
<b>Isotype</b>	Rat IgG1, κ
<b>Description</b>	IL-4 is a pleiotropic cytokine produced by activated T cells, mast cells, and basophils. IL-4 is a potent lymphoid cell growth factor which stimulates the growth and activation of certain B cells and T cells. IL-4 is important for regulation of T helper subset development.

### Product Details

<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Partially purified native mouse IL-4
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
<b>Concentration</b>	0.2 mg/ml
<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="#">ICFC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">intracellular immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per 10 <sup>6</sup> cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Excitation Laser</b>	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
<b>Application Notes</b>	<p><b>ELISA<sup>1,2,10,13</sup> or ELISPOT<sup>5</sup> Capture:</b> The purified 11B11 antibody is useful as the capture antibody in a sandwich ELISA or ELISPOT assay, when used in conjunction with the biotinylated BVD6-24G2 antibody (Cat. No. 504202) as the detecting antibody and recombinant mouse IL-4 (Cat. No. 575609) as the standard. The LEAF™ purified antibody is suggested for ELISPOT capture.</p> <p><b>Neutralization<sup>1-2,9,12</sup>:</b> The 11B11 antibody can neutralize the bioactivity of natural or recombinant IL-4. The LEAF™ purified antibody (Endotoxin &lt;0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for neutralization of mouse IL-4 bioactivity <i>in vivo</i> and <i>in vitro</i> (Cat. No. 504108).</p> <p><b>Additional reported applications (for the relevant formats) include:</b> immunoprecipitation<sup>16</sup>, immunohistochemical staining of formalin-fixed paraffin-embedded tissue sections<sup>8</sup> and paraformaldehyde-fixed, saponin-treated frozen tissue sections<sup>6,7</sup>, and immunocytochemistry<sup>4</sup>.</p> <p><b>Note:</b> For testing mouse IL-4 in serum, plasma or supernatant, BioLegend's ELISA Max™ Sets (Cat. No. 431101 to 431106) are specially developed and recommended.</p>
<b>Application References</b>	<ol style="list-style-type: none"> <li>Shirai A, <i>et al.</i> 1994. <i>Cytokine</i> 6:329. (ELISA, Neut)</li> <li>Abrams J. 1995. <i>Curr. Prot. Immunol.</i> John Wiley and Sons New York. Unit 6.20. (ELISA, Neut)</li> <li>Assenmacher M, <i>et al.</i> 1994. <i>Eur. J. Immunol.</i> 24:1097.</li> <li>Openshaw P, <i>et al.</i> 1995. <i>J. Exp. Med.</i> 182:1357. (ICC)</li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	

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**RRID** AB\_315317 (BioLegend Cat. No. 504103)  
 AB\_315318 (BioLegend Cat. No. 504104)

## Antigen Details

<b>Structure</b>	Cytokine; 15-19 kD (Mammalian)
<b>Bioactivity</b>	Differentiation of naïve CD4 <sup>+</sup> T cells to the T <sub>H</sub> 2 type, proliferation/differentiation of activated B cells, expression of class II MHC antigens, and of low affinity IgE receptors in resting B cells
<b>Cell Sources</b>	Mast cells, T cells, bone marrow stromal cells
<b>Cell Targets</b>	B cells, T cells, monocytes, endothelial cells, fibroblasts
<b>Receptors</b>	Heterodimer IL-4R $\alpha$ (CD124); $\gamma$ -subunit (CD132) in common with IL-2R, IL-7R, IL-13R, IL-15R
<b>Cell Type</b>	Tregs
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	Cytokines/Chemokines
<b>Antigen References</b>	1. Fitzgerald K, <i>et al.</i> Eds. 2001. The Cytokine FactsBook. Academic Press San Diego. 2. Boulay J, <i>et al.</i> 1992. <i>Curr. Opin. Immunol.</i> 4:294. 3. Dullens H, <i>et al.</i> 1991. <i>In vivo</i> 5:567. 4. Paul W. 1991. <i>Blood</i> 77:1859.
<b>Regulation</b>	Upregulated by IL-2, platelet activating factor; downregulated by TGF- $\beta$
<b>Gene ID</b>	<a href="#">16189</a>

## Related Protocols

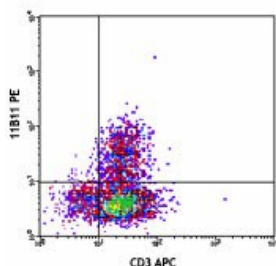
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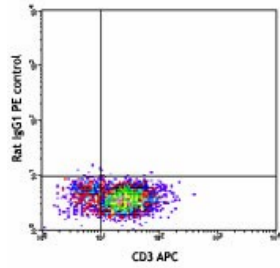
## Other Formats

APC anti-mouse IL-4, PE anti-mouse IL-4, Purified anti-mouse IL-4, Alexa Fluor<sup>®</sup> 488 anti-mouse IL-4, Alexa Fluor<sup>®</sup> 647 anti-mouse IL-4, PE/Cyanine7 anti-mouse IL-4, Brilliant Violet 421<sup>™</sup> anti-mouse IL-4, Ultra-LEAF<sup>™</sup> Purified anti-mouse IL-4, PerCP/Cyanine5.5 anti-mouse IL-4, Brilliant Violet 605<sup>™</sup> anti-mouse IL-4, Purified anti-mouse IL-4 (Maxpar<sup>®</sup> Ready), PE/Dazzle<sup>™</sup> 594 anti-mouse IL-4, Brilliant Violet 711<sup>™</sup> anti-mouse IL-4, APC/Fire<sup>™</sup> 750 anti-mouse IL-4

## Product Data



PMA+ionomycin-stimulated (6 hours, in presence of brefeldin A) Th2-polarized C57BL/6 CD4-positive cells were surface stained with CD3 APC and then intracellularly stained with IL-4 (11B11) PE (top) or Rat IgG1,  $\kappa$  PE isotype control (bottom).



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