

# Product Data Sheet

## PE anti-mouse IL-4

**Catalog # / Size:** 504103 / 25 µg  
504104 / 100 µg

**Clone:** 11B11

**Isotype:** Rat IgG1, κ

**Immunogen:** Partially purified native mouse IL-4

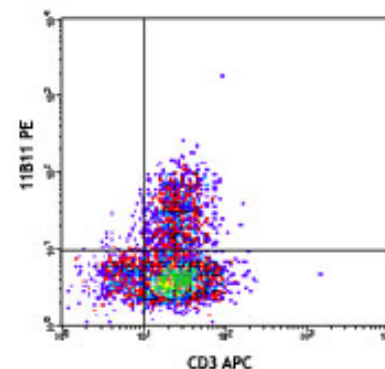
**Reactivity:** Mouse

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

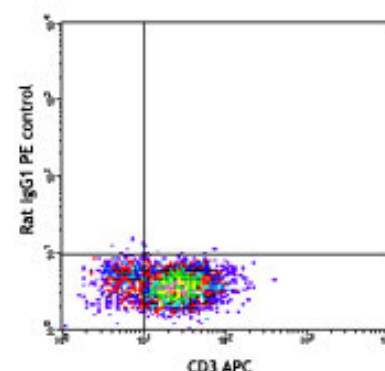
**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.2 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



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, κ PE isotype control (bottom).



## Applications:

**Applications:** ICFC - Quality tested

**Recommended Usage:** Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. For immunofluorescent 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.

**Application Notes:** **ELISA<sup>1,2,10,13</sup> or ELISPOT<sup>5</sup> Capture:** 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.

**Neutralization<sup>1-2,9,12</sup>:** The 11B11 antibody can neutralize the bioactivity of natural or recombinant IL-4. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for neutralization of mouse IL-4 bioactivity *in vivo* and *in vitro* (Cat. No. 504108).

**Additional reported applications (for the relevant formats) include:** immunoprecipitation, Western blotting, 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.

**Note:** 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.

- Application References:**
- Shirai A, *et al.* 1994. *Cytokine* 6:329. (ELISA, Neut)
  - Abrams J. 1995. *Curr. Prot. Immunol.* John Wiley and Sons New York. Unit 6.20. (ELISA, Neut)
  - Assenmacher M, *et al.* 1994. *Eur. J. Immunol.* 24:1097.
  - Openshaw P, *et al.* 1995. *J. Exp. Med.* 182:1357.
  - Klinman D, *et al.* 1994. *Curr. Prot. Immunol.* John Wiley and Sons New York. Unit 6.19. (ELISA Capture)
  - Litton M, *et al.* 1994. *J. Immunol. Methods* 175:47. (IHC)
  - Andersson U, *et al.* 1999. *Detection and quantification of gene expression.* New York:Springer-Verlag. (IHC)
  - Fan WY, *et al.* 2001. *Exp. Biol. Med.* 226:1045. (IHC)
  - Hara M, *et al.* 2001. *J. Immunol.* 166:3789. (Neut)
  - Dzhagalov I, *et al.* 2007. *J. Immunol.* 178:2113. (ELISA)
  - Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.
  - Wang W, *et al.* 2007. *J. Immunol.* 178:4885. (Neut)
  - Xu G, *et al.* 2007. *J. Immunol.* 179:5358. (ELISA) PubMed
  - Ohnmacht C, *et al.* 2008. *Blood* 113:2816. PubMed
  - Charles N, *et al.* 2010. *Nat. Med.* 16:701. (FC) PubMed

**Description:** 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.



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**Antigen References:** 1. Fitzgerald K, *et al.* Eds. 2001. The Cytokine FactsBook. Academic Press San Diego.  
 2. Boulay J, *et al.* 1992. *Curr. Opin. Immunol.* 4:294.  
 3. Dullens H, *et al.* 1991. *In vivo* 5:567.  
 4. Paul W. 1991. *Blood* 77:1859.

Related Products:	Product	Clone	Application
	Cell Staining Buffer		FC, ICC, ICFC
	Fixation Buffer		ICC, ICFC
	Permeabilization Wash Buffer (10X)		ICC, ICFC, IHC
	Brefeldin A Solution (1,000X)		ICFC
	Monensin Solution (1,000X)		ICFC
	RBC Lysis Buffer (10X)		FC, ICFC
	PE Rat IgG1, $\kappa$ Isotype Ctrl	RTK2071	FC, ICFC



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