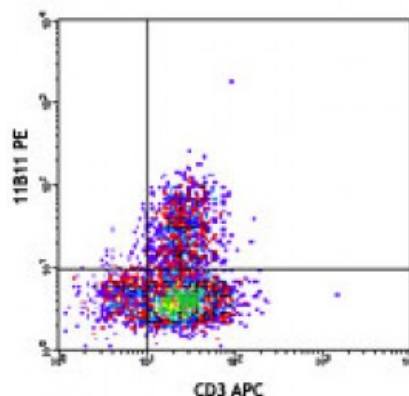


PE anti-mouse IL-4

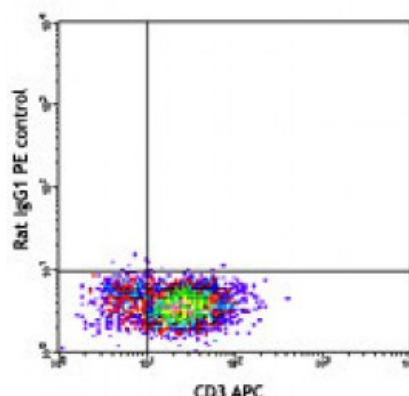
Catalog # / Size:	3120515 / 25 µg 3120520 / 100 µg
Clone:	11B11
Isotype:	Rat IgG1, κ
Immunogen:	Partially purified native mouse IL-4
Reactivity:	Mouse
Preparation:	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Concentration:	0.2



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:	Flow Cytometry
Recommended Usage:	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 microg per 10^6 cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.



Application Notes:	<p>ELISA^{1,2,10,13} or ELISPOT⁵ 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.</p> <p>Neutralization^{1-2,9,12}: 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 <i>in vivo</i> and <i>in vitro</i> (Cat. No. 504108).</p> <p>Additional reported applications (for the relevant formats) include:</p>
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immunoprecipitation¹⁶, immunohistochemical staining of formalin-fixed paraffin-embedded tissue sections⁸ and paraformaldehyde-fixed, saponin-treated frozen tissue sections^{6,7}, and immunocytochemistry⁴.

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:

1. Shirai A, *et al.* 1994. *Cytokine* 6:329. (ELISA, Neut)
2. Abrams J. 1995. *Curr. Prot. Immunol.* John Wiley and Sons New York. Unit 6.20. (ELISA, Neut)
3. Assenmacher M, *et al.* 1994. *Eur. J. Immunol.* 24:1097.
4. Openshaw P, *et al.* 1995. *J. Exp. Med.* 182:1357. (ICC)
5. Klinman D, *et al.* 1994. *Curr. Prot. Immunol.* John Wiley and Sons New York. Unit 6.19. (ELISA Capture)
6. Litton M, *et al.* 1994. *J. Immunol. Methods* 175:47. (IHC)
7. Andersson U, *et al.* 1999. *Detection and quantification of gene expression.* New York:Springer-Verlag. (IHC)
8. Fan WY, *et al.* 2001. *Exp. Biol. Med.* 226:1045. (IHC)
9. Hara M, *et al.* 2001. *J. Immunol.* 166:3789. (Neut)
10. Dzhagalov I, *et al.* 2007. *J. Immunol.* 178:2113. (ELISA)
11. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.
12. Wang W, *et al.* 2007. *J. Immunol.* 178:4885. (Neut)
13. Xu G, *et al.* 2007. *J. Immunol.* 179:5358. (ELISA) [PubMed](#)
14. Ohnmacht C, *et al.* 2008. *Blood* 113:2816. [PubMed](#)
15. Charles N, *et al.* 2010. *Nat. Med.* 16:701. (FC) [PubMed](#)
16. Zavorotinskaya T, *et al.* 2003. *Mol. Ther.* 7:155. (IP)
17. Lu Y, *et al.* 2012. *Mol Immunol.* 52:229. [PubMed](#)
18. Sawant DV, *et al.* 2014. *J. Immunol.* 192:2904. [PubMed](#)
19. Bhattacharya D, *et al.* 2014. *J. Biol. Chem.* 289:16508. [PubMed](#)
20. Shimoi A, *et al.* 2014. *J Immunol.* 193:849. [PubMed](#)
21. Mykkanen OT, *et al.* 2014. *PLoS One.* 9:114790. [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.

**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