

**FITC anti-human IL-4**

**Catalog # / Size:** 3104030 / 100 tests  
3104035 / 50 µg

**Clone:** MP4-25D2

**Isotype:** Rat IgG1, κ

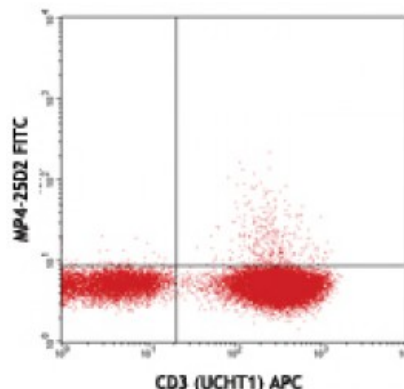
**Immunogen:** CHO-expressed, recombinant human IL-4

**Reactivity:** Human

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

**Formulation:** test size: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).  
microg size: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** microg sizes: 0.5 mg/ml  
test sizes: lot-specific



PMA/ionomycin-stimulated (6 hours)  
human peripheral blood  
lymphocytes stained with MP4-25D2  
FITC and CD3 (UCHT1) APC

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** **ELISA Detection<sup>1,3</sup> or ELISPOT Detection<sup>4,5</sup>:** The biotinylated MP4-25D2 antibody is useful as a detection antibody for a sandwich ELISA or ELISPOT assay, when used in conjunction with purified 8D4-8 antibody (Cat. No. 500702/500707) as the capture antibody.

**Flow Cytometry<sup>6,9</sup>:** The fluorochrome-labeled MP4-25D2 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify IL-4 -producing cells within mixed cell populations.

**Neutralization<sup>1-3</sup>:** The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for neutralization of human IL-4 bioactivity (Cat. No. 500815). The MP4-25D2 antibody can neutralize the bioactivity of natural or recombinant IL-4.

- Application References:**
1. Chretien I, *et al.* 1989. *J. Immunol. Methods* 117:67. (ELISA Detection, Neut)
  2. Ramanathan L, *et al.* 1993. *Biochem.* 32:3549. (Neut)
  3. Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5. (ELISA Detection, Neut)
  4. Mahanty S, *et al.* 1992. *J. Immunol.* 148:3567. (ELISPOT Detection)
  5. Klinman D, *et al.* 1994. *Curr. Prot. Immunol.* John Wiley and Sons New York. Unit 6.19. (ELISPOT Detection)
  6. Prussin C, *et al.* 1995. *J. Immunol. Methods* 188:117. (ICFC)
  7. Raqib R, *et al.* 1995. *Infect. Immun.* 63:289.
  8. Andersson J, *et al.* 1994. *Immunology* 83:16.
  9. Iwamoto S, *et al.* 2007. *J. Immunol.* 179:1449. (ICFC) [PubMed](#)

10. Kubota M, *et al.* 1997. *J. Immunol.* 158:5321.
  11. Dzhagalov I, *et al.* 2007. *J. Immunol.* 178:2113. [PubMed](#)
  12. Kroneke MA, *et al.* 2012. *J. Immunol.* 188:3734. [PubMed](#)
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**Description:** IL-4 is a pleiotropic cytokine that is produced by activated T cells, mast cells, and basophils. IL-4 elicits many different biological responses but has two dominant functions. The first is regulating differentiation of naïve CD4<sup>+</sup> T cell to the Th2 type. Th2 cells produce IL-4, IL-5, IL-10, and IL-13, which tend to favor a humoral immune response while suppressing a cell-mediated immune response controlled by Th1 cells. The second is regulating IgE and IgG1 production by B cells.

**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