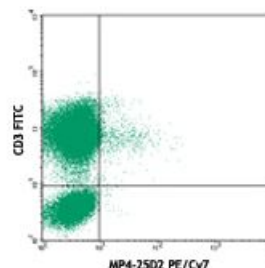


## PE/Cyanine7 anti-human IL-4

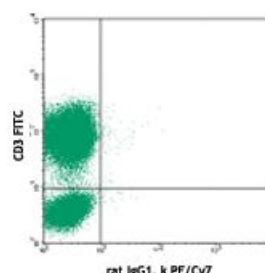
|                         |  |
|-------------------------|--|
| <b>Catalog # /</b>      | 3104120 / 100 tests  |
| <b>Size:</b>            | 3104115 / 25 tests   |
| <b>Clone:</b>           | MP4-25D2   |
| <b>Isotype:</b>         | Rat IgG1, κ  |
| <b>Immunogen:</b>       | CHO-expressed, recombinant human IL-4  |
| <b>Reactivity:</b>      | Human, Other   |
| <b>Preparation:</b>     | The antibody was purified by affinity chromatography, and conjugated with PE/Cy7 under optimal conditions. |
| <b>Formulation:</b>     | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).                   |
| <b>Workshop Number:</b> | IV N832  |
| <b>Concentration:</b>   | Lot-specific   |



PMA+ionomycin-stimulated (6 hours) human peripheral blood lymphocytes surface stained with CD3 FITC, then intracellularly stained with MP4-25D2 PE/Cy7 (top) or rat IgG1, κ PE/Cy7 isotype control (bottom)

## Applications:

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



**Application Notes: Other 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 Other 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<sup>™</sup> 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. (Other Detection, Neut)
2. Ramanathan L, *et al.* 1993. *Biochem.* 32:3549. (Neut)
3. Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5. (Other 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](#)

**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 W. 1991. *Blood* 77:1859.