

# Product Data Sheet

## PerCP/Cy5.5 anti-human IL-4

**Catalog # / Size:** 500821 / 25 tests  
500822 / 100 tests

**Clone:** MP4-25D2

**Isotype:** Rat IgG1,  $\kappa$

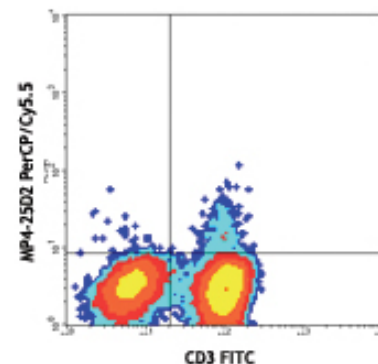
**Immunogen:** CHO-expressed, recombinant human IL-4

**Reactivity:** Human, **Cross-Reactivity:** Swine (Pig, Porcine), Rhesus

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with PerCP/Cy5.5 under optimal conditions. The solution is free of unconjugated PerCP/Cy5.5 and unconjugated antibody.

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

**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)  
human peripheral blood lymphocytes  
intracellularly stained with CD3 FITC  
and MP4-25D2 PerCP/Cy5.5

## 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 5  $\mu$ l per million cells or 5  $\mu$ l per 100  $\mu$ l of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* PerCP/Cy5.5 has a maximum absorption of 482 nm and 564 nm and a maximum emission of 690 nm.

**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. For intracellular cytokine staining protocol, please visit [www.biolegend.com](http://www.biolegend.com) and click on the support section.

**Neutralization**<sup>1-3</sup>: The LEAF™ purified antibody (Endotoxin <0.1 EU/ $\mu$ g, Azide-Free, 0.2  $\mu$ m 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.

Cy3, Cy5, Cy5.5 and Cy7 are subject to proprietary rights of GE Healthcare Bio-Sciences Corp. and Carnegie Mellon University and made and sold under license from GE Healthcare Bio-Sciences Corp. Sale of this product is licensed for research use only.

- Application References:**
- Chretien I, *et al.* 1989. *J. Immunol. Methods* 117:67. (ELISA Detection, Neut)
  - Ramanathan L, *et al.* 1993. *Biochem.* 32:3549. (Neut)
  - Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5. (ELISA Detection, Neut)
  - Mahanty S, *et al.* 1992. *J. Immunol.* 148:3567. (ELISPOT Detection)
  - Klinman D, *et al.* 1994. *Curr. Prot. Immunol.* John Wiley and Sons New York. Unit 6.19. (ELISPOT Detection)
  - Prussin C, *et al.* 1995. *J. Immunol. Methods* 188:117. (ICFC)
  - Raqib R, *et al.* 1995. *Infect. Immun.* 63:289.
  - Andersson J, *et al.* 1994. *Immunology* 83:16.
  - Iwamoto S, *et al.* 2007. *J. Immunol.* 179:1449. (ICFC) PubMed
  - Kubota M, *et al.* 1997. *J. Immunol.* 158:5321.
  - Dzhagalov I, *et al.* 2007. *J. Immunol.* 178:2113. 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:**
- Fitzgerald K, *et al.* Eds. 2001. *The Cytokine FactsBook*. Academic Press San Diego.
  - Boulay J, *et al.* 1992. *Curr. Opin. Immunol.* 4:294.
  - Dullens H, *et al.* 1991. *In vivo* 5:567.
  - Paul W. 1991. *Blood* 77:1859.

### Related Products:

Product  
Cell Staining Buffer  
PerCP/Cy5.5 Rat IgG1,  $\kappa$  Isotype Ctrl

### Clone

RTK2071

### Application

FC, ICC, ICFC  
FC, ICFC



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