

Product Data Sheet

PE/Cy7 anti-human IL-4

Catalog # / Size: 500823 / 25 tests
500824 / 100 tests

Clone: MP4-25D2

Isotype: Rat IgG1, κ

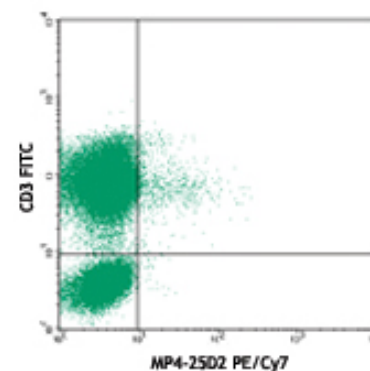
Immunogen: CHO-expressed, recombinant human IL-4

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

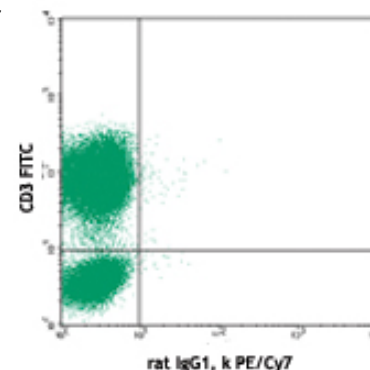
Preparation: The antibody was purified by affinity chromatography, and conjugated with PE/Cy7 under optimal conditions. The solution is free of unconjugated PE/Cy7 and unconjugated antibody.

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 surface stained with CD3 FITC, then intracellularly stained with MP4-25D2 PE/Cy7 (top) or rat IgG1, κ PE/Cy7 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. **Test size products are transitioning from 20 μ l to 5 μ l per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 μ l staining volume or per 100 μ l of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. Read more at www.biolegend.com/testsize regarding the test size change.

Application Notes: **ELISA Detection^{1,3} or ELISPOT Detection^{4,5}:** 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^{6,9}: 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 and click on the support section.

Neutralization¹⁻³: The LEAF™ purified antibody (Endotoxin <0.1 EU/ μ g, Azide-Free, 0.2 μ 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:**
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. Dzhalalov 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⁺ 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.



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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
	PE/Cy7 Rat IgG1, κ Isotype Ctrl	RTK2071	FC, ICFC
	Cell Staining Buffer		FC, ICC, ICFC
	RBC Lysis Buffer (10X)		FC, ICFC
	Fixation Buffer		ICC, ICFC
	Permeabilization Wash Buffer (10X)		ICC, ICFC,
			IHC
	Brefeldin A Solution (1,000X)		ICFC
	Monensin Solution (1,000X)		ICFC



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