

Purified anti-human IL-4

Catalog # / Size: 500801 / 50 µg
500802 / 500 µg

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.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C.

Applications:

Applications: ELISA - *Quality tested*
ICFC, IHC, IP, WB - *Reported in the literature*
CyTOF® - *Validated*

Recommended Usage: Each lot of this antibody is quality control tested by ELISA assay. Purified MP4-25D2 has been tested by blocking fluorochrome conjugated MP4-25D2 for intracellular cytokine staining. In order to obtain complete blocking results, a saturated amount of purified antibody (≤ 5.0 µg/million cells) should be used for incubation with target cells, prior to staining with fluorochrome conjugated antibody. It is recommended that the reagent be titrated for optimal performance for each application.

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/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:

- 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
- 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⁺ 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	Clone	Application
	Purified anti-human IL-4	8D4-8	ELISA Capture, IHC, IP



For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.



*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.