

Product Data Sheet

LEAF™ Purified anti-human IL-4

Catalog # / Size: 500814 / 50 µg
500815 / 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 LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.

Formulation: 0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.1 EU/µg of the protein (<0.01 ng/µg of the protein) as determined by the LAL test.

Concentration: 1.0 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C. This LEAF™ solution contains no preservative; handle under aseptic conditions.

Applications:

Applications: ELISA - *Quality tested*
Neut, 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

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
LEAF™ Purified anti-human IL-4

Clone
8D4-8

Application

ELISA Capture, ELISPOT
Capture, ICFC, IHC, IP, Neut
BA, ELISA
FC, ICFC, WB, IP, ICC, IF,
IHC-FA

Recombinant Human IL-4

rh IL-4

LEAF™ Purified Rat IgG1, κ Isotype Ctrl

RTK2071



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