



Anti Human Interleukin-4 (IL-4) Purified Monoclonal Mouse Antibody

Code: 211-44-134C **Lot no.:**
Clone: 8F12 **Exp.:** 1 year from date of dispatch
Isotype: Mouse IgG1
Quantity: 500µg (1 mg/ml) antibody in phosphate buffered saline, with 0.09% (w/v) Sodium Azide.

Purification: Protein G affinity chromatography.

Specificity: This antibody recognizes both recombinant and natural forms of human IL-4¹.

Applications: Flow cytometry: Intracellular staining of IL-4 producing cells with clone 8F12 was demonstrated by flow cytometric analysis. Mitogen stimulated purified T cells treated with saponin and monensin yielded a strong positive signal with clone 8F12 in flow cytometry². Allergen specific T cell clones derived from patients with atopic dermatitis showed a high degree of correlation between IL-4 levels in supernatants by ELISA and intracellular flow cytometric analysis. A correlation was observed with respect to the pattern of cytokine (Th0, Th1 or Th2) production^{1,2}.

Immunocytochemistry (ICC): Intracellular staining of human IL-4 with clone 8F12 was demonstrated with the use of transfected CHO cells expressing IL-4^{3,4}. Clone 8F12 was also used for intracellular staining of mitogen stimulated purified human T cells⁸ and gradient purified human basophils stimulated with IL-3⁴.

ELISA: Biotinylated anti human IL-4 antibody (clone 8F12; cat# 211-44-234C) can be used as the detecting antibody in a two-site sandwich ELISA for measuring human IL-4 levels. The purified form of anti human IL-4 may be used as the capture reagent (clone 3H4; Cat # 211-44-134B)^{1,4,5,6}, with recombinant human IL-4 (Cat # 111-40-134) as the standard. Optimal concentration for the biotin-conjugated detecting monoclonal (clone 8F12) was 2µg/ml. This ELISA measured human IL-4 with a detection limit of 5 pg/ml and range up to 3 ng/ml.

Neutralization: Clone 8F12 was demonstrated to neutralize the biological activity of human IL-4 by inhibition of IL-4 stimulated T cell proliferation⁷. The inhibition of 50% maximal T cell proliferation (IC₅₀) was equal to 0.3 nM of clone 8F12. We recommend the azide free format of clone 8F12 for this application (cat # 211-44-534C).

Western Blotting: Clone 8F12 was found to react equally well with native and denatured amounts of human IL-4 (smaller than 10 ng), in dot blot and Western blot analysis⁷.

References:

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| <p>1. Jung T. et al. (1995). <i>Eur. J. Immunol.</i> 25: 2413-2416.</p> <p>2. Jung T. et al. (1993). <i>J.Immunol. Meth.</i> 159: 197-207.</p> <p>3. Mueller R. et al. (1994). <i>Cell Biology International.</i> 18(1): 55-61.</p> | <p>4. Mueller, R. et al. (1994). <i>Eur. J. Immunol.</i> 24: 2935-2940.</p> <p>5. Brunner, T. et al. (1993). <i>J. Exp. Med.</i> 177: 605.</p> <p>6. Kilchherr, E: et al. (1993). <i>Cell. Immunol.</i> 151:241.</p> <p>7. Reusch, P. et al. (1994). <i>Eur. J. Biochem.</i> 222: 491-499.</p> <p>8. Andersson, U. et al. (1990). <i>Eur. J. Immunol.</i> 20: 1591-1596.</p> |
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Storage: For use within 1 month store at +4°C. For long term storage, aliquot antibody into small volumes and store at -20°C. Avoid repeated freeze / thaw cycles.

For Research Use Only. Not For Diagnostic or Therapeutic Use.

Conditions: The information disclosed herein is not to be considered as a recommendation to use the above product in violation of any patents. ImmunoKontakt will not be held responsible for patent infringement or other violations that may occur with the use of our products.

Caution: Sodium azide (NaN₃) yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding.

Rev. Jan-15

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