Anti Human Interleukin-4 (IL-4)
Azide Free Monoclonal Mouse Antibody

Code: 211-44-534C ***Lot no.:*** 1288-1009P

Clone: 8F12 ***Exp.:*** 1 year from date of dispatch

Isotype: Mouse IgG1

Quantity: 500µg (1 mg/ml) antibody buffered in phosphate buffered saline, pH 8.0 without Sodium Azide.

Purification: Protein A affinity chromatography.

Specificity: This antibody recognizes both recombinant and natural forms of human IL-4[1].

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 cytometry[2]. 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 cells[8] and gradient purified human basophils stimulated with IL-3[4].

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 2ug/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 proliferation[7]. The inhibition of 50% maximal T cell proliferation (IC_{50}) 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 analysis [7].

References:

1. Jung T. et al. (1995). Eur. J. Immunol. 25: 2413-2416.
2. Jung T. et al. (1993). J.Immunol. Meth. 159: 197-207.
3. Mueller R. et al. (1994). Cell Biology International. 18(1): 55-61.
4. Mueller, R. et al. (1994). Eur. J. Immunol. 24: 2935-2940.
5. Brunner, T. et al. (1993). J. Exp. Med. 177: 605.
6. Kilchherr, E: et al. (1993).Cell. Immunol. 151:241.
7. Reusch, P. et al. (1994). Eur. J. Biochem. 222: 491-499.
8. Andersson, U. et al. (1990). Eur. J. Immunol. 20: 1591-1596.

Storage: Since antibody solution does not contain sodium azide or other preservatives, we recommend to aliquot solution into small volumes under sterile conditions and store at -20°C.

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

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UK & REST OF WORLD
184 MILTON PARK, ABINGDON
OX14 4SE, OXON, UK
TEL: +44 (0) 1235 828 200
FAX: +44 (0) 1235 820 482

UNITED STATES
23591 EL TORO RD, SUITE #180
LAKE FOREST, CA 92630
TEL: + 1 800 987 0985
FAX: + 1 949 265 7703

SWITZERLAND
CENTRO NORD-SUD 2E
CH-6934 BIOGGIO-LUGANO
TEL: +41 (0) 91 604 55 22
FAX: +41 (0) 91 605 17 85

DEUTSCHLAND
BOCKENHEIMER LANDSTR. 17/19
60325 FRANKFURT/MAIN
TEL: +49 (0) 69 779099
FAX: +49 (0) 69 13376880