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Certificate of Analysis and Data Sheet

Rat anti-mouse Interleukin-4 (IL-4) Antibody

| Catalog No. | Species: | Isotype: | Clone No: | Accession No: |
|--------------|----------|-------------|-----------|---------------|
| RB-IP-01-107 | Mouse | Mouse Ig G1 | NA | NP_067258 |

Description

IL-4 is a T cell product originally described as B cell growth factor by virtue of its ability to co-stimulate B lymphocyte proliferation (1). It has broad effects on B cells, including the promotion of Ig class switching to IgE and IgG1 isotypes in activated B cells. In addition to regulating B lymphocyte growth and differentiation, IL-4 modulates the survival, proliferation, and differentiation of T lymphocytes, as well as a wide range of hematopoietic cell lineages, thereby contributing to allergic and other immune processes.

Preparation

Immunogen was whole expressing mouse **IL-4**. This antibody was obtained from a mice immunized with the immunogen, then fusion, selection and identification. This antibody was produced from a hybridoma resulting from the fusion of a myeloma with B cells derived from the immunized rat. The IgG fraction of cell culture supernatant was purified by Protein G affinity chromatography.

Specificity

The antibody specifically detected protein derived from rat. It also recognizes tested samples containing IL-4 in both ELISA and WB. This antibody shows no cross-reactivity with human IL-4 and other unrelated proteins.

Reconstitution

Supplied as 100 µl of purified antibody in sterile PBS (pH 7.5), containing 0.1% BSA. It final concentration is indicated in shipping vial. **Please avoid freeze-thaw cycles.**

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Storage

Always prepare single-use aliquots planning use while receiving package. A small amount of antibody can be kept at 4⁰ C for daily use. For a long storage, recommend to keep them at -20⁰ C after adding an equal volume of glycerol in PBS. It will not lose activity over a year. Minimize freezing and thawing when use.

Applications

Table Summary of antibody applications and working conditions

| Options Functions | YES | NO | Not determined | Recommended Work dilution or concentration |
|-----------------------------|-----|----|----------------|---|
| ELISA | * | | | 1:1000-2000 |
| Western Blotting | * | | | 2-5 µg/ml |
| Immunohistology - frozen | | | # | |
| Immunoprecipitation | | | # | |
| Flow Cytometry | | | # | |
| Immunofluorescence staining | | | # | |
| Neutralization | | | # | |

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

Reference

Lebman, D. A., A. Lebman, and R. L. Coffman. 1988. Interleukin 4 causes isotype switching to IgE in T cell-stimulated clonal B cell cultures. *J. Exp. Med.* 168, 853 .

Kepron, M. R., Y.W. Chen, J. W. Uhr, and E. S. Vitetta. 1989. IL-4 induces the specific rearrangement of γ 1 genes on the expressed and unexpressed chromosomes of lipopolysaccharide-activated normal murine cells. *f. Immunol.* 143:334.

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