



## MONOCLONAL ANTI-HUMAN INTERLEUKIN-4 RECEPTOR

Clone 25463.11

IgG Fraction of Mouse Ascites Fluid

Product Number I 6146

### Product Description

Monoclonal Anti-Human Interleukin-4 Receptor (IgG2a isotype) is purified from a mouse hybridoma produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice. Recombinant human interleukin 4 soluble receptor (IL-4sR) purified from the insect cell line *Sf 21* was used as the immunogen. The antibody is purified by Protein A affinity chromatography.

The Interleukin-4 receptor is a complex consisting of two chains. One chain is the high affinity IL-4 binding (p140,  $\alpha$  chain, CD 124) chain and the other chain is the  $\gamma$  chain.<sup>1</sup> The high affinity IL-4 binding chain belongs to the cytokine receptor superfamily. The cytoplasmic domain contains Ser/Pro-rich regions similar to those present in the IL-2 receptor and GM-CSF receptor  $\beta$ -chains.<sup>1</sup> The recombinant human IL-4 soluble receptor corresponds to the human IL-4 receptor extracellular domain. The recombinant, human IL-4 sR is a potent IL-4 antagonist.<sup>2</sup> This antibody will block IL-4 binding to its receptor. This antibody does not cross react with recombinant, human IL-2 sR $\alpha$ , recombinant, human IL-2 sR $\beta$  or recombinant, human IL-2 sR $\gamma$ .

### Product Information

Mass/vial: 0.5 mg

Immunogen: Recombinant, human IL-4 sR from *Sf 21* insect cells

Isotype: Mouse IgG2a

Formulation: Lyophilized from PBS without additives.

Bioactivity: ND<sub>50</sub> = 0.5-25  $\mu$ g/ml

Indirect Immunoblotting: 1-2  $\mu$ g/ml of antibody detects 20 ng/lane of human IL-4 sR under non-reducing conditions.

Indirect ELISA: 0.5-1.0  $\mu$ g/ml of antibody detects 0.2 ng human IL-4 sR/well.

Sterility: 0.2  $\mu$ m-filtered, aseptic fill

Endotoxin: < 0.1 ng/mg antibody

## Product Information

### Reagents

Monoclonal Anti-Human IL-4 Receptor is provided lyophilized from phosphate buffered saline, to which no preservatives are added.

### Performance

Anti-Human Interleukin-4 Receptor is tested for its ability to neutralize the bioactivity of recombinant, human IL-4 on TF-1 cells, by blocking the binding of IL-4 to cell surface receptors on the human TF-1 cells.<sup>3</sup> The ND<sub>50</sub> of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of recombinant human IL-4 which is present at a concentration just high enough to elicit a maximum response. Serial dilutions of the antibody were incubated with TF-1 cells for one hour at 37 °C. Following the preincubation with antibody, recombinant human IL-4 was added and the bioassay was incubated at 37 °C for 48 hours in a CO<sub>2</sub> incubator.

### Reconstitution and Use

Reconstitute the contents of the vial with 0.1 ml of 0.2 $\mu$ m-filtered phosphate buffered saline. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

### Storage/Stability

Store lyophilized product at -20 °C. Store reconstituted product at 2-8 °C for one month. For prolonged storage, store in working aliquots at -20 °C. Avoid repeated freezing and thawing.

### References

1. Callard, R., et al., *The Cytokine Facts Book*, Academic Press, London. 55 (1994).
2. Garrone, P., et al., *Eur. J. Immunol.*, **21**, 1365 (1991).
3. Kitamura, T., et al., *J. Cell Physiol.*, **140**, 323 (1989).

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