

Product No. I-6146

Lot 085H6656

Monoclonal Anti-Human Interleukin-4 Receptor

IgG Fraction of Mouse Ascites Fluid

Clone 25463.11

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

Description

The Interleukin-4 receptor is a complex consisting of two chains. One chain is the high affinity IL-4 binding (p140, α chain, CD 124) chain and the other chain is the γ chain.¹ 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 β -chains.¹ 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.² This antibody will block IL-4 binding to its receptor. This antibody does not cross react with recombinant, human IL-2 sR α , recombinant, human IL-2 sR β or recombinant, human IL-2 sR γ .

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.³ The ND₅₀ 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 CO₂

incubator.

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: ND₅₀ = 1.2 ng/ml
 Indirect
 Immunoblotting: 1-2 μ g/ml of antibody detects 20 ng/lane of human IL-4 sR under non-reducing conditions.
 Indirect ELISA: 0.5-1.0 μ g/ml of antibody detects 0.2 ng human IL-4 sR/well.
 Sterility: 0.2 μ m-filtered, aseptic fill
 Endotoxin: \leq 0.1 ng/mg antibody

Reconstitution and Use

Reconstitute the contents of the vial with 1.0 ml of 0.2 μ m-filtered distilled water. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage

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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