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Product Information

Anti-Human Interleukin-12

Developed in Goat
IgG Fraction of Antiserum

Product Number **I 5395**

Product Description

Anti-Human Interleukin-12 is developed in goat using human, recombinant interleukin-12 (rhIL-12), expressed in the insect cell line Sf 21, as the immunogen. The product is purified by Protein G affinity chromatography. Goat Anti-Human IL-12 is provided lyophilized from phosphate buffered saline, pH 7.4, to which no preservatives have been added.

Interleukin-12, previously known as Cytotoxic Lymphocyte Maturation Factor (CLMF) and Natural Killer Cell Stimulatory Factor (NKSF), is a pleiotropic cytokine having multiple effects on both NK and T cells.^{1,2,3} Anti-Human IL-12 neutralizes the bioactivity of rhIL-12. The product shows no cross reactivity with other tested cytokines using indirect ELISA.

Product Information

Mass/vial: 1 mg
Immunogen: Human, recombinant IL-12 (rhIL-12)
Host animal: Goat
Formulation: Lyophilized from PBS without additives
Endotoxin: <10 ng/vial by LAL method
Bioactivity: ND₅₀ = <8 µg/ml
Indirect ELISA: 0.5 µg/ml detects 0.3 ng/well of rhIL-12
Indirect Immunoblotting: 1 µg/ml antibody detects rhIL-12 at 5 ng/lane under reducing conditions and at 20 ng/lane under non-reducing conditions
Sterility: 0.2 µm-filtered, aseptic fill

Performance

Anti-Human IL-12 was tested for its ability to neutralize the bioactivity of rhIL-12 in a cell proliferation assay using phytohemagglutinin (PHA) activated human peripheral blood mononuclear cells (PBMNC).⁴ The ND₅₀ of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of rhIL-12, which is present at five times its

own EC₅₀ (the concentration of rhIL-12 producing a one-half maximal bioactivity without antibody). In this bioassay, rhIL-12 was pre-incubated with various dilutions of the antibody for 1 hour at 37 °C in a 96-well microtiter plate. Then, human PBMNCs activated for 5 days with PHA were added to each well to give a final concentration of 2 x 10⁵ cells/ml in 0.1 ml containing 1 ng/ml rhIL-12. This was incubated for 48 hours at 37 °C in a 5% CO₂ humidified incubator and then pulsed for 4 hours with ³H-thymidine. Cells were harvested onto glass filters and the ³H-thymidine incorporation into DNA was measured.

Reconstitution and Use

To one vial of lyophilized powder, add 1 ml of 0.2 µm-filtered PBS to produce a 1 mg/ml stock solution of Anti-Human IL-12. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage

Prior to reconstitution, store at -20 °C. Reconstituted product may be stored at 2-8 °C for up to one month. For prolonged storage, freeze in working aliquots at -20 °C. Avoid repeated freezing and thawing.

References

1. Gately, M., et al., J. Immunol., **136**, 1274 (1986).
2. Kobayashi, M., et al., J. Exp. Med., **170**, 827 (1989).
3. Reiter, Z., and Rappaport, B., Crit. Rev. Immunol., **13**, 1 (1993).
4. Stern, A., et al., Proc. Natl. Acad. Sci. USA, **87**, 6808 (1990).

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