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Interleukin-4 Mouse Recombinant CYTOKINE

Catalog Number: PRP-302
Quantity: 2 micrograms, 10 micrograms
Format: Sterile-filtered white lyophilized (freeze-dried) powder
Host: *E. coli*

Background:

Interleukin-4 is a pleiotropic cytokine produced primarily by activated T lymphocytes, basophils and mast cells. Multiple immune response-modulating functions are performed by IL-4 on a variety of cell types and it has an important role in the regulator of isotype switching, induction of IgE production in B lymphocytes and differentiation of precursor T helper cells. IL-4 binds to both membrane-bound and secreted soluble IL-4 receptors.

Specificity and Preparation:

Interleukin-4 mouse recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 120 amino acids and having a molecular mass of 13500 Dalton. The IL-4 is purified by proprietary chromatographic techniques and lyophilized from a concentrated (1 mg/ml) solution in water containing no additives. Purity is greater than 95.0% as determined by RP-HPLC and SDS-PAGE. The ED₅₀ as determined by the dose-dependant proliferation of murine HT-2 cells is < 2 ng/ml, corresponding to a Specific Activity of 5x10⁵ IU/mg.

Amino acid sequence: MHIHGCDKNH LREIIGILNE VTGEGTPCTE MDVPNVLTAT KNTTESELVC
RASKVLRIFY LKHGKTPCLK KNSSVLMELQ RLFRAFRCLD SSISCTMNES KSTSLKDFLE
SLKSIMQMDY S

Usage and Storage:

Reconstitute lyophilized material in sterile 18MΩ-cm H₂O at not less than 100μg/ml, which can then be further diluted to other aqueous solutions. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate. Although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution material should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid repeated freezing and thawing.

To view protocol(s) for this and other products please visit: www.ATSBio.com/support/protocols