



Technical Data Sheet

Recombinant Murine Interleukin-4 (rMu IL-4)

Murine Interleukin-4

Interleukin-4 is a pleiotropic cytokine that regulates diverse T and B cell responses including cell proliferation, survival and gene expression. Produced by mast cells, T cells and bone marrow stromal cells, IL-4 regulates the differentiation of naive CD4+ T cells into helper Th2 cells, characterized by their cytokine-secretion profile that includes secretion of IL-4, IL-5, IL-6, IL-10, and IL-13, which favor a humoral immune response. Another dominant function of IL-4 is the regulation of immunoglobulin class switching to the IgG1 and IgE isotypes. Excessive IL-4 production by Th2 cells has been associated with elevated IgE production and allergy.

Catalog Number:	RC232-15
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 13.5 kDa, a single non-glycosylated polypeptide chain containing 120 amino acids.
Quantity:	5ug/20ug/1000µg
Purity:	>96% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ as determined by the dose-dependant proliferation of Murine HT-2 cells is less than 2 ng/ml, corresponding to a Specific Activity of 5 x 10 ⁵ IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2µm filtered solution in PBS, pH 7.4.
AA Sequence:	MHIHGCDKNH LREIIGILNE VTGEGTPCTE MDVPNVLTAT KNTTESELVC RASKVLRIFY LKHGKTPCLK KNSSVLMELQ RLFRAFRCCLD SSISCTMNES KSTSLKDFLE SLKSIMQMDYS
Endotoxin:	Less than 1EU/µg of rmIL-4 as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at -20°C. Further dilutions should be made in appropriate buffered solutions.



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Storage:

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. **Avoid repeated freeze/thaw cycles.**

Usage:

This material is offered by Bio Basic Inc. for research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE.**