

## PRODUCT DATA SHEET



Bioworld Technology, Inc.

### Recombinant Murine Interleukin-4 (rMuIL-4 )

Catalog Number: PR2025

Source: Escherichia coli.

Quantity: 5µg/20µg/1.0mg

#### Description

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<sup>+</sup> 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.

#### Molecular Weight:

Approximately 13.5 kDa, a single non-glycosylated polypeptide chain containing 120 amino acids.

#### Purity:

>96% by SDS-PAGE and HPLC analyses.

#### Biological Activity:

Fully biologically active when compared to standard. The ED50 as determined by the dose-dependant proliferation of Murine HT-2 cells is less than 2 ng/ml, corresponding to a Specific Activity of  $\square 5 \times 10^5$  IU/mg.

#### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

#### Formulation:

Lyophilized from a 0.2mm filtered solution in PBS, pH 7.4.

#### AA Sequence:

M H I H G C D K N H L R E I I G I L N E V T G E G T P C  
T E M D V P N V L T A T K N T T E S E L V C R A S K V  
L R I F Y L K H G K T P C L K K N S S V L M E L Q R L  
F R A F R C L D S S I S C T M N E S K S T S L K D F L E  
S L K S I M Q M D Y S

#### Endotoxin:

Less than 1EU/mg of rMuIL-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 10mM HAc to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at  $\leq -20^\circ\text{C}$ . Further dilutions should be made in appropriate buffered solutions.

#### 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 USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

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