

# Recombinant Murine Interleukin-3

## Certificate of Analysis and Data Sheet

➤ <b>Source:</b> E.Coli	➤ <b>Catalog No.</b> CTK-371
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### ➤ **Background :**

Interleukin-3 (IL-3) is a cytokine produced by activated T-cells and mast cells that is active on a broad range of hematopoietic cells and in the nervous system and appears to be important in several chronic inflammatory diseases

### ➤ **Description :**

Recombinant murine IL-3 produced in E.Coli is a single, non-glycosylated polypeptide chain containing 135 amino acids and having a molecular mass of 15100 Dalton.  
Recombinant Murine IL-3 is purified by proprietary chromatographic techniques.

### ➤ **Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

### ➤ **Formulation:**

Interleukin-3 is lyophilized from a concentrated (1mg/ml) solution in water containing no additives.

### ➤ **Solubility:**

It is recommended to reconstitute the lyophilized IL-3 in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### ➤ **Stability:**

Lyophilized IL-3 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Interleukin-3 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).

**Please avoid freeze-thaw cycles.**

➤ **Purity:**

Greater than 97.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

➤ **Amino acid sequence:**

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Asp-Thr-His-Arg.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This Murine IL-3 is fully biologically active when compared to standard. The ED50 as determined by the dose-dependent stimulation of murine M-NFS-60 cells is < 0.05 ng/ml, corresponding to a Specific Activity of  $2 \times 10^7$  IU/mg.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of Recombinant IL-3.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.154 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).

2. Analysis by RP-HPLC, using a standard solution of Murine IL-3 as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further manufacturing purposes.