



## Interleukin-5, rat recombinant (rrIL-5)

**Catalog No:** 86429  
**Lot No:** XXXXX  
**Source:** *E. coli*  
**Synonyms:** EDF, BCDFII, TRF, T-cell replacing factor, Eosinophil differentiation factor, B cell differentiation factor I, IL-5

### Background

The protein encoded by this gene is a cytokine that acts as a growth and differentiation factor for both B cells and eosinophils. This cytokine is a main regulator of eosinopoiesis, eosinophil maturation and activation. The elevated production of this cytokine is reported to be related to asthma or hypereosinophilic syndromes. The receptor of this cytokine is a heterodimer, whose beta subunit is shared with the receptors for interleukine 3 (IL3) and colony stimulating factor 2 (CSF2/GM-CSF). This gene, together with those for interleukin 4 (IL4), interleukin 13 (IL13), and CSF2, form a cytokine gene cluster on chromosome 5. This cytokine, IL4, and IL13 are found to be regulated coordinately by long-range regulatory elements spread over 120 kilobases on chromosome 5q31.

### Description

Interleukin-5 rat recombinant produced in *E. coli* is a dimeric, non-glycosylated polypeptide chain containing 113 amino acids and having a molecular mass of 13074 Dalton. IL-5 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

Lyophilized from a concentrated (1 mg/ml) solution in water containing no additives.

### Solubility

It is recommended to reconstitute the lyophilized Interleukin-5 in sterile 18 M $\Omega$ -cm H<sub>2</sub>O not less than 100  $\mu$ g/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized Interleukin-5, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL-5 rat should be stored at 4°C between 2-7 days and for future use below -18°C. Please avoid freeze thaw cycles.

### Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

### Amino Acid Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Glu-Ile-Pro-Met.

### Activity

The ED50 range = 0.3 - 1.0 ng/ml as determined by the dose-dependant stimulation of the proliferation of BCL-1 cells.

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### Usage

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