



## 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.



**Usage**

**This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.**