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## Product Data Sheet

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Product Name: IL 5 Human  
 Cat. No.: GP20507  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	EDF; BCDFII; TRF; T-cell replacing factor; Eosinophil differentiation factor; B cell differentiation factor I; IL-5.		
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ile-Pro-Thr-Glu.		
Solubility	It is recommended to reconstitute the lyophilized Interleikin-5 in sterile 18MΩ-cm H <sub>2</sub> O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Lyophilized from a concentrated (1mg/ml) solution in water containing no additives.		

### Introduction

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.

### Biological Activity

The ED50 as determined by the dose-dependant stimulation of the proliferation of TF-1 cells was found to be < 0.15ng/ml, corresponding to a Specific Activity of 6 x 10<sup>6</sup> IU/mg.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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### Stability

Lyophilized Interleukin-5 although stable at room temperature for 3 weeks, should be stored desiccated below  $-18^{\circ}\text{C}$ . Upon reconstitution IL5 should be stored at  $4^{\circ}\text{C}$  between 2-7 days and for future use below  $-18^{\circ}\text{C}$ . Please avoid freeze thaw cycles.

### Background

Interleukin-5 Human Recombinant produced in E.Coli is a dimeric, non-glycosylated polypeptide chain containing two 113 amino acids chains, and having a molecular mass of 26522.84 Dalton. The IL-5 is purified by proprietary chromatographic techniques.

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