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## Product Data Sheet

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Product Name: IL 7 Rat  
 Cat. No.: GP20534  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Lymphopoietin 1 (LP-1); pre-B cell factor; IL-7.		
Amino Acid Sequence	DCHIKDKDGK AFGSVLMISI NQLDKMTGTD SDCPNNEPNF FKKHLCDDTK EAAFLNRAAR KLRQFLKMNI SEEFNDHLLR VSDGTQTLVN CTSKEEKTIK EQKKNPCFL KRLLEIKTC WNKILKGS		
Solubility	It is recommended to reconstitute the lyophilized IL-7 in sterile 18M-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 0.2µm filtered concentrated solution in PBS, pH 7.4.		

### Introduction

IL-7 is a cytokine important for B and T cell development. This cytokine and the hepatocyte growth factor (HGF) form a heterodimer that functions as a pre-pro-B cell growth-stimulating factor. This cytokine is found to be a cofactor for V(D)J rearrangement of the T cell receptor beta (TCRB) during early T cell development. This cytokine can be produced locally by intestinal epithelial and epithelial goblet cells, and may serve as a regulatory factor for intestinal mucosal lymphocytes. Knockout studies in mice suggested that this cytokine plays an essential role in lymphoid cell survival.

### Biological Activity

The ED<sub>50</sub> was determined by the dose-dependent stimulation of the proliferation of murine 2E8 cells is less than 0.2ng/ml, corresponding to a specific activity of >5,000,000IU/mg.

### Stability

Lyophilized IL-7 although stable at room temperature for 3 weeks, should be stored

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

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desiccated below  $-18^{\circ}\text{C}$  . Upon reconstitution IL-7 should be stored at  $4^{\circ}\text{C}$  between 2-7 days and for future use below  $-18^{\circ}\text{C}$  .Please prevent freeze-thaw cycles.

### Background

IL 7 Rat Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 129 amino acids and having a molecular mass of 15.0kDa.The IL 7 is purified by proprietary chromatographic techniques.

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