



## Product Datasheet

<b>Product Name</b>	Interleukin-7 Human Recombinant, Yeast
<b>Cata No</b>	CB500200
<b>Source</b>	<i>Saccharomyces cerevisiae</i>
<b>Synonyms</b>	Lymphopoietin 1 (LP-1), pre-B cell factor, IL-7.

### Description

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.

Interleukin-7 Human Recombinant produced in yeast is a single, glycosylated polypeptide chain containing 152 amino acids and having a molecular mass of 17.4 kDa. The IL-7 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

### Biological Activity

The ED50 as determined by the dose-dependent

stimulation of thymidine uptake by murine pre-B cell line 2E8 is < 0.5 ng/mL, corresponding to a specific activity of > 2 x 10<sup>6</sup> units/mg.

### Purity

Greater than 98.0% as determined by SDS-PAGE.

### Formulation

Lyophilized from a concentrated (1 mg/ml) solution in water containing 20mM phosphate buffer.

### Stability

Lyophilized Interleukin-7 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL7 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 prevent freeze-thaw cycles.**

### Sequence

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

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