

## 32-1422: IL 7 Yeast Recombinant Protein

**Alternative Name :** Lymphopoietin 1 (LP-1),pre-B cell factor,IL-7.

### Description

Source : *Saccharomyces cerevisiae*. 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. 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.

### Product Info

<b>Amount :</b>	10 µg
<b>Purification :</b>	Greater than 98.0% as determined by SDS-PAGE.
<b>Content :</b>	Lyophilized from a concentrated (1mg/ml) solution in water containing 20mM phosphate buffer.
<b>Storage condition :</b>	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.
<b>Amino Acid :</b>	The sequence of the first five N-terminal amino acids was determined and was found to be Asp-Cys-Asp-Ile-Glu.

### Application Note

It is recommended to reconstitute the lyophilized Interleukin -7 in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions. The ED<sub>50</sub> 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.

