

Growth Factor Data Sheet

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Interleukin-7 (IL7) is encoded by the IL7 gene and secreted by stromal cells in the red marrow and thymus. It binds to the IL7 receptor, a heterodimer consisting of an IL7 receptor alpha chain and an IL2 receptor gamma chain. IL7 stimulates the differentiation of hematopoietic stem cells into lymphoid progenitor cells and also stimulates the proliferation of B-cells, T-cells and natural killer (NK) cells. Furthermore, IL7 as an immunotherapy agent has been examined in many human clinical trials for various malignancies including during HIV infection. Rat IL7 contains 129 amino acid residues and has three disulfide bonds. In addition, it has approximately 63% and 88% amino acid sequence identity with human and murine IL7 respectively.

Catalog Number	1510-07
Product Name	IL7, Rat Recombinant Rat Interleukin-7 IL7 Pre-B-cell Growth Factor (PBGF)
Source	<i>Escherichia coli</i>
MW	~14.9 kDa (129 amino acids)
Sequence	DCHIKDKDGK AFGSVLMISI NQLDKMTGTD SDCPNNEPNF FKKHLCDDTK EAAFLNRAAR KLRQFLKMNI SEEFNDHLLR VSDGTQTLVN CTSKEEKTIK EQKKNDP CFL KRLLEIKTC WNKILKGS I
Accession Number	P56478
Purity	>95% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using murine 2E8 cells is less than 2.0 ng/ml, corresponding to a specific activity of >5.0 × 10 ⁵ IU/mg.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.