

# Growth Factor Data Sheet

GoldBio growth factors are manufactured for **RESEARCH USE ONLY** and cannot be sold for human consumption!

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 IL7 receptor alpha and IL2 receptor gamma chains. IL7 stimulates the differentiation of hematopoietic stem cells into lymphoid progenitor cells. IL7 can also stimulate the proliferation of B-cells, T cells and NK cells (natural killer cells). Murine IL7 has approximately 61% amino acid sequence identity with human IL7, and both proteins exhibit cross-species activity. IL7 has been examined as an immunotherapy agent in many human clinical trials for various malignancies, along with its role in HIV-positive individuals.

<b>Catalog Number</b> <b>Product Name</b>	<b>1110-07</b> <b>IL7, Human</b> Recombinant Human Interleukin-7 IL7 Pre-B-cell growth factor (PBGF)
<b>Source</b>	<i>Escherichia coli</i>
<b>MW</b>	~17.4 kDa (152 amino acids)
<b>Sequence</b>	DCDIEGKDGK QYESVLMVSI DQLLDSMKEI GSNCLNNEFN FFKRHICDAN KEGMFLFRAA RKLRLQFLKMN STGDFDLHLL KVSEGTILL NCTGQVKGRK PAALGDAQPT KSLEENKSLK EQKKLNDLCF LKRLLEIKT CWNKILMGTK EH
<b>Accession Number</b>	<a href="#">P13232</a>
<b>Purity</b>	>97% by SDS-PAGE and HPLC analyses.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using murine 2E8 cells is less than 0.5 ng/ml, corresponding to a specific activity of >2.0 × 10 <sup>6</sup> IU/mg.
<b>Formulation</b>	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
<b>Storage/Handling</b>	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.
<b>Reconstitution</b>	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.