

## Recombinant Rat IL7 protein

Cat. No. IL7-578R Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Rat IL7 protein was expressed in Escherichia coli.
<b>Species</b>	Rat
<b>Source</b>	E.coli
<b>ProteinLength</b>	129
<b>Description</b>	Interleukin-7 (IL-7) is encoded by the IL7 gene and secreted by stromal cells in the red marrow and thymus. It binds to the IL-7 receptor, a heterodimer consisting of IL-7 receptor alpha and IL-2 receptor gamma chain. IL-7 stimulates the differentiation of hematopoietic stem cells into lymphoid progenitor cells and also stimulates proliferation of B cells, T cells and NK cells. Furthermore, IL-7 as an immunotherapy agent has been examined in many human clinical trials for various malignancies and during HIV infection. Rat IL-7 contains 129 amino acid residues and has three disulfide bonds. In addition, it has approximately 57 % and 88 % amino acid sequence identity with human and murine IL-7.
<b>Form</b>	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
<b>Bio-activity</b>	Fully biologically active when compared to standard. The ED50 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 <sup>5</sup> IU/mg.
<b>Molecular Mass</b>	Approximately 14.9 kDa, a single non-glycosylated polypeptide chain containing 129

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	amino acids.
<b>AA Sequence</b>	DCHIKDKDGKAFGSVLMISINQLDKMTGTDSDCPNNEPNFFKKHLCDDTKEAAFLNR AARKLRQFLKMNISEEFNDHLLRVSDGTQTLVNCTSKEEKTIKEQKKNPCFLKRL REIKTCWNKILKGS
<b>Endotoxin</b>	Less than 1 EU/g of rRtIL-7 as determined by LAL method.
<b>Purity</b>	>95% by SDS-PAGE and HPLC analysis.
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

## GENE INFORMATION

<b>Gene Name</b>	IL7
<b>Official Symbol</b>	IL7
<b>Synonyms</b>	IL7; interleukin 7; interleukin-7; IL-7;
<b>Gene ID</b>	25647

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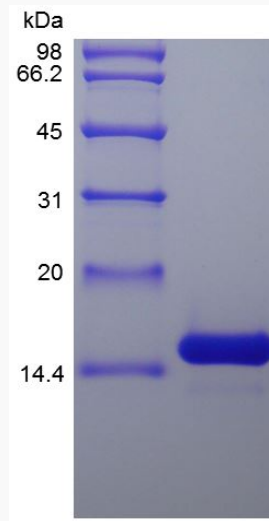
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mRNA Refseq [NM\\_013110](#)

Protein Refseq [NP\\_037242](#)

UniProt ID [P56478](#)

SDS-PAGE of I17-578R



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