

Recombinant Rat IL7 protein

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

SPECIFICATION

Product Overview	Recombinant Rat IL7 protein was expressed in Escherichia coli.
Species	Rat
Source	E.coli
ProteinLength	129
Description	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.
Form	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
Bio-activity	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 $> 5.0 \times 10^5$ IU/mg.
Molecular Mass	Approximately 14.9 kDa, a single non-glycosylated polypeptide chain containing 129

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	amino acids.
AA Sequence	DCHIKDKDGKAFGSVLMISINQLDKMTGTDSDCPNNEPNFFKKHLCDDTKAAFLNR AARKLRQFLKMNISEEFNDHLLRVSDGTQTLVNCTSKEEKTIKEQKKNDPCFLKRL REIKTCWNKILKGS
Endotoxin	Less than 1 EU/g of rRtIL-7 as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Storage	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.
Reconstitution	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

Gene Name	IL7
Official Symbol	IL7
Synonyms	IL7; interleukin 7; interleukin-7; IL-7;
Gene ID	25647

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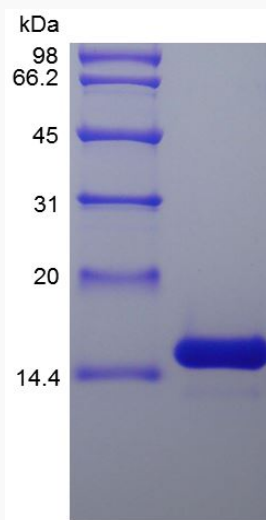
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mRNA Refseq NM_013110

Protein Refseq NP_037242

UniProt ID P56478

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