

## Recombinant Mouse IL7 protein

Cat. No. IL7-77M Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Mouse IL7 protein was expressed in Escherichia coli.

**Species** Mouse

**Source** E.coli

**ProteinLength** 129

**Description**

Interleukin-7 (IL-7) is encoded by the IL7 gene in mouse and secreted by stromal cells in the red marrow and thymus. The protein signals through the IL-7 receptor, which is 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 it can stimulate proliferation of B cells, T cells and NK cells. Murine IL-7 has approximately 65 % and 88 % amino acid sequence identity with human and rat IL-7 and both proteins exhibit cross-species activity. IL-7 as an immunotherapy agent has been examined in many human clinical trials for various malignancies and during HIV infection.

**Form**

Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4, 2 % trehalose.

**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 0.2 ng/ml, corresponding to a specific activity of  $> 5.0 \times 10^6$  IU/mg.

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<b>Molecular Mass</b>	Approximately 14.9 kDa, a single non-glycosylated polypeptide chain containing 129 amino acids.
<b>AA Sequence</b>	ECHIKDKEGKAYESVLMISIDELDKMTGTDSNCPNNEPNFFRKHVCDTKEAAFLNR AARKLKQFLKMNISEEFNVHLLTVSQGTQTLVNCTSKEEKNVKEQKKNDACFLKRL REIKTCWNKILKGS
<b>Endotoxin</b>	Less than 1 EU/g of rMuL-7 as determined by LAL method.
<b>Purity</b>	>96% 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; hlb368; A630026I06Rik; MGC129342;
<b>Gene ID</b>	16196

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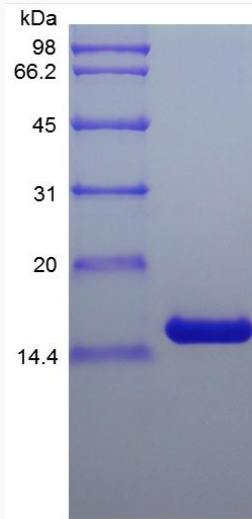
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mRNA Refseq [NM\\_008371](#)

Protein Refseq [NP\\_032397](#)

UniProt ID [Q544C8](#)

SDS-PAGE of I17-77M



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