

GMP Recombinant Human IL7 protein

Cat. No. IL7-4322HG **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL7 protein was expressed in Escherichia coli. This product is produced under cGMP guidelines.
Species	Human
Source	E.coli
ProteinLength	152
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. Murine IL-7 has approximately 65 % amino acid sequence identity with human 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.
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 0.5 ng/ml, corresponding to a specific activity of $> 2.0 \times 10^6$ IU/mg.
Molecular Mass	Approximately 17.4 kDa, a single non-glycosylated polypeptide chain containing 152

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	amino acids.
AA Sequence	DCDIEGKDGKQYESVLMVSIQLLDSMKEIGSNCLNNEFNFFKRHICDANKEGMFLF RAARKLRQFLKMNSTGDFDLHLLKVSEGTILLNCTGQVKGRKPAALGEAQPTKSLE ENKSLKEQKKLNDLCFLKRLQLQEIKTWCWNKILMGTKEH
Endotoxin	Less than 0.01 EU/g of rHuIL-7 GMP as determined by LAL method.
Purity	>98% 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; IL-7;
Gene ID	3574

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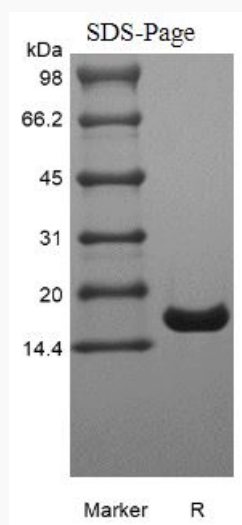
mRNA Refseq NM_000880

Protein Refseq NP_000871

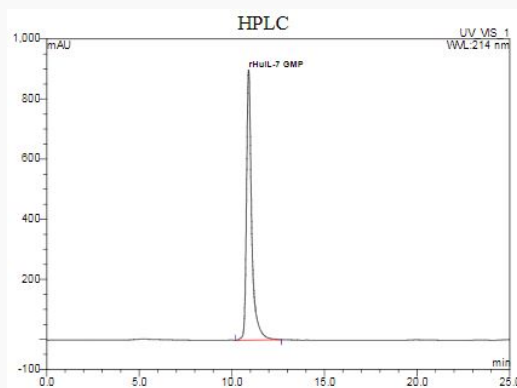
MIM 146660

UniProt ID P13232

SDS-PAGE of IL7-4322HG



HPLC of IL7-4322HG



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