

Active GMP Recombinant Human IL7 Protein

Cat. No. IL7-151HG **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL7 (Asp26-His177) with a 6His tag at the C-terminus was produced in HEK293 cell in an animal component free process under cGMP guidelines.
Species	Human
Source	HEK293
ProteinLength	26-177 a.a.
Description	Human Interleukin 7 (IL-7) is a potent lymphoid cell growth factor stimulating the proliferation of lymphoid progenitors. IL7 can associate with the hepatocyte growth factor (HGF) to form a hybrid cytokine that functions as a pre-pro-B cell growth-stimulating factor. Human IL7 cDNA encodes a 177 amino acid precursor protein containing a 25 amino acid signal peptide and a 152 amino acid mature protein. Human and mouse IL7 share 65% sequence identity in the mature region and both exhibit cross-species activity. IL-7 signals via IL-7 receptor (IL7R) activating multiple pathways including JaK/STAT and PI3K/AKT, which regulate lymphocyte survival, glucose uptake, proliferation, and differentiation. IL-7 is also associated with cytoplasmic IL2-R gamma for signal transduction.
Form	Lyophilized.
Bio-activity	2x10 ⁶ U/mg

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AA Sequence	DCDIEGKDGKQYESVLMVSDQLLDSMKEIGSNCLNNEFNFFKRHICDANKEGMFLF RAARKLRQ FLKMNSTGDFDLHLLKVSEGTILLNCTGQVKGRKPAALGEAQPTKSL EENKSLKEQKKLNDLCF LKRLLEIKTCWNKILMGTKEHVDHHHHH
Residual Host Cell DNA Content	<10pg/mg
Residual Host Cell Protein Content	<1ug/mg
Endotoxin	<0.1EU/ug
Purity	Greater than 95% as determined by reducing SDS-PAGE.
Usage	Recommemnd working concentration: 40ng/ml
Storage	Lyophilized and reconstituted protein should be stored at -80 centigrade. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration >100µg/ml. Dissolve the lyophilized protein in ddH ₂ O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Quality Statement	Our GMP proteins are produced according to relevant sections of the following documents: WHO TRS, No. 822, 1992 Annex 1, Good Manufacturing Practices for Biological Products; USP Chapter 1043, Ancillary Materials for Cell, Gene and Tissue-Engineered Products and USP Chapter 92, Growth Factors and Cytokines Used in Cell Therapy Manufacturing.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at

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the recommended temperature.

GENE INFORMATION

Gene Name	IL7 interleukin 7 [Homo sapiens]
Official Symbol	IL7
Synonyms	IL7; interleukin 7; interleukin-7; IL 7; IL-7
Gene ID	3574
mRNA Refseq	NM_000880
Protein Refseq	NP_000871
MIM	146660
UniProt ID	P13232

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