

## **Recombinant Human IL-7 (C-6His)**

Catalog No: PMK2109

Known As:Interleukin-7; IL-7; IL7

## **PROPERTIES**

Description	Recombinant Human Interleukin-7 is produced by our Mammalian expression system and the target gene encoding Asp26-His177 is expressed with a 6His tag at the Cterminus.
Accession	P13232
Formulation	Lyophilized from a 0.2 μm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.
Size	$10\mu g/50\mu g/500\mu g/1mg$
Purity	> 95%
Endotoxin	< 0.01 EU/μg as determined by LAL test.
Predicted Mol Mass	18.4 KDa
Apparent Mol Mass	19-30 KDa, reducing conditions
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Storage	Lyophilized protein should be stored at $\leq$ -20°C, stable for one year after receipt.  Reconstituted protein solution can be stored at 2-8°C for 2-7 days.  Aliquots of reconstituted samples are stable at $\leq$ -20°C for 3 months.
Background	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 growthstimulating 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.

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