

## **Recombinant Human IL-7**

Catalog No: PMK2170

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

## **PROPERTIES**

Description	Recombinant Human Interleukin-7 is produced by our E.coli expression system and the target gene encoding Asp26-His177 is expressed.
Accession	P13232
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 300mM NaCl, pH 8.0.
Size	10μg/50μg/500μg/1mg
Purity	> 95%
Endotoxin	<1EU/µg as determined by LAL test.
Predicted Mol Mass	17.5 KDa
Apparent Mol Mass	18 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.
Shipping	Please aliquot the reconstituted solution to minimize freeze-thaw cycles.  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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