

GMP IL-7 Protein, Human

Cat. No.:	HY-P78550
Synonyms:	Interleukin-7; IL-7; IL7
Species:	Human
Source:	E. coli
Accession:	P13232 (D26-H177)
Gene ID:	3574
Molecular Weight:	Approximately 17.5 kDa

PROPERTIES

AA Sequence	<p> DC D I E G K D G K Q Y E S V L M V S I D Q L L D S M K E I G S N C L N N E F N F F K R H I C D A N K E G M F L F R A A R K L R Q F L K M N S T G D F D L H L L K V S E G T T I L L N C T G Q V K G R K P A A L G E A Q P T K S L E E N K S L K E Q K K L N D L C F L K R L L Q E I K T C W N K I L M G T K E H </p>
Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<0.01 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	<p>The IL-7 protein serves as a crucial hematopoietic cytokine, playing an indispensable role in the development, expansion, and survival of both naive and memory T-cells as well as B-cells, thereby regulating the population of mature lymphocytes and maintaining lymphoid homeostasis. Its biological effects are executed through a receptor comprised of the IL7RA subunit and the cytokine receptor common subunit gamma/CSF2RG. Upon binding to the receptor, IL-7 activates various kinases, including JAK1 or JAK3, depending on the cell type. This activation leads to the propagation of signals through multiple downstream pathways, such as the PI3K/Akt/mTOR or the JAK-STAT5 pathways. IL-7's interaction with IL7R and CSF2RG highlights its pivotal role in orchestrating diverse signaling cascades crucial for immune cell development and function.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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