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IL-7

Catalog # PVGS1023

Product Information

Primary Accession	P13232
Species	Human
Sequence	Asp26-His177
Purity	> 97% as analyzed by SDS-PAGE > 97% as analyzed by HPLC
Endotoxin Level	
Biological Activity	Fully biologically active when compared to standard. rHuIL-7 stimulates proliferation of PHA-activated human peripheral blood mononuclear cell (PBMC). The specific activity of Recombinant Human IL-7 is ≥ 1.0×10^8 IU/mg, which is calibrated against human IL-7 WHO Standard.
Expression System	E. coli
Theoretical Molecular Weight	17.4 kDa
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS, pH 7.4.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	3574
Other Names	Interleukin-7, IL-7, IL7
Target Background	Interleukin-7 (IL-7), also known as lymphopoietin 1 and pre-B cell factor, is a hematopoietic growth factor belonging to the IL-7/IL-9 family. It is produced by keratinocytes, dendritic cells, hepatocytes, neurons and epithelial cells. IL-7 binds and signals through IL-7 receptor, a heterodimer consisting of IL-7 receptor alpha and common gamma chain receptor. IL-7 plays a role in regulating early B cell and T cell development. It is also important for optimal dendritic cell-T cell interaction.

Protein Information

Name	IL7
Function	Hematopoietic cytokine that plays an essential role in the development, expansion, and survival of naive and memory T-cells and B- cells thereby regulating the number of mature lymphocytes and maintaining lymphoid homeostasis (PubMed:25870237, PubMed:7527823). Mechanistically, exerts its biological effects through a receptor composed of IL7RA subunit and the cytokine receptor common subunit gamma/CSF2RG (PubMed:8128231). Binding to the receptor leads to activation of various kinases including JAK1 or JAK3 depending on the cell type and subsequently propagation of signals through activation of several downstream signaling pathways including the PI3K/Akt/mTOR or the JAK-STAT5 (PubMed:18523275, PubMed:20974963).
Cellular Location	Secreted.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.