

Recombinant Human Interleukin-7

#R00043

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- A minimum of 12 months from date of receipt, when stored at ≤ -20 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Interleukin-7 (IL-7) is encoded by the IL7 gene and secreted by stromal cells in the red marrow and thymus. It binds to the IL-7 receptor, a heterodimer consisting of IL-7 receptor alpha and IL-2 receptor gamma chain. IL-7 stimulates the differentiation of hematopoietic stem cells into lymphoid progenitor cells and also stimulates proliferation of B cells, T cells and NK cells. Murine IL-7 has approximately 65% amino acid sequence identity with human IL-7 and both proteins exhibit cross-species activity. IL-7 as an immunotherapy agent has been examined in many human clinical trials for various malignancies and during HIV infection.

AA Sequence

DCDIEGKDGKQYESVLMVSIQQLDSMKEIGSNCLNN
EFNFFKRHICDANKEGMFLFRAARKLRQFLKMNSTG
DFDLHLLKVSEGTTILLNCTGQVKGRKPAALGEAQPT
KSLEENKSLKEQKKLNDLCFLKRLLQEIKTCWNKILM

GTKEH

Reconstitution

Prior to opening, it is recommended to centrifuge the vial briefly to bring the contents down the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. If animal-origin-free condition is expected in your product, then sterile distilled water is recommended. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	LP-1, pre-B cell factor
Accession	P13232
GeneID	3574
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 17.4 kDa, a single non-glycosylated polypeptide chain containing 152 amino acids.
Purity	> 97% by SDS-PAGE and HPLC analyses.
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 Units/mg, which is calibrated against human IL-7 WHO Standard (NIBSC code: 90/530).
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin	Less than 1 EU/μg of rHuIL-7 as determined by LAL method.
Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.