

Recombinant Murine Interleukin-7

#R00222

Size: 10 µg/100 µg/500 µg

Stability & Storage

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

- 12 months from date of receipt, -20 to -70 °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 in mouse and secreted by stromal cells in the red marrow and thymus. The protein signals through the IL-7 receptor, which is 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 it can stimulate proliferation of B cells, T cells and NK cells. Murine IL-7 has approximately 65 % and 88 % amino acid sequence identity with human and rat 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

ECHIKDKEGKAYESVLMISIDELDKMTGTDSNCPNNE
PNFFRKHVCDDTKEAAFLNRAARKLKQFLKMNISEEF
NVHLLTVSQGTQTLVNCTSKEEKNVKEQKKNDACFL

KRLLREIKTCWNKILKGS

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. 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	Q544C8
GeneID	16196
Species	Murine
Source	Escherichia coli.
Molecular Weight	Approximately 14.9 kDa, a single non-glycosylated polypeptide chain containing 129 amino acids.
Purity	> 96 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using murine 2E8 cells is less than 0.2 ng/ml, corresponding to a specific activity of > 5.0 × 10 ⁶ IU/mg.

Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4, 2 % trehalose.
Endotoxin	Less than 1 EU/µg of rMuLL-7 as determined by LAL method.