

BACKGROUND

Interleukin 7 (IL-7) is a hematopoietic cytokine that is constitutively produced by stromal cells from the bone marrow and thymus. IL-7 signals through the IL-7R to promote the differentiation of hematopoietic stem cells to lymphoid precursor cells, which give rise to T cells, B cells, and natural killer cells. Human and mouse IL-7 show species cross-reactivity.

Recombinant human IL-7 is a non-glycosylated protein, containing 153 amino acids and having a molecular mass of 17.4 kDa.

Alternative Names:

Lymphopoietin 1 (LP-1), pre-B cell Factor

Amino Acid Sequence:

MDCDIEGKDG KQYESVLMVS IDQLDSMKE IGSNCLNEF
NFFKRHICDA NKEGMFLFRA ARKLRQFLKM NSTGDFDLHL
LKVSEGTTL LNCTGQVKGR KPAALGEAQP TKSLEENKSL
KEQKKLNDLC FLKRLLEIK TCWNKILMGT KEH

TECHNICAL INFORMATION

Source: *E.coli*

Physical Appearance:

Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:

Recombinant human IL-7 is lyophilized with no additives.

Stability:

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:

The activity is determined by the dose-dependant stimulation of mouse 2E8 cells and is typically less than 0.5 ng/ml.

Products are for research use only. They are not intended for human, animal, or diagnostic applications.

