

Recombinant Human Interleukin-15

#R00053

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

Human Interleukin-15 (IL-15) is expressed by the IL15 gene located on the chromosome 4. It shares approximately 97 % and 73 % sequence identity with simian and murine IL-15, respectively. Both human and simian IL-15 are active on murine cells. IL-15 is secreted by mononuclear phagocytes (and some other cells), especially macrophages following infection by virus. It possesses a variety of biological functions, including stimulating and maintaining of cellular immune responses, especially regulating T and natural killer (NK) cell activation and proliferation. In additionally, it shares many biological properties with IL-2, including T, B and NK cell-stimulatory activities. IL-15 signals through a complex composed of IL-2/IL-15 receptor beta chain. Although IL-15 lacks sequence homology with IL-2, it has recently been shown that both the beta and gamma chains of the IL-2 receptor are utilized for IL-15 binding and signaling. In addition, an IL-15 specific binding

protein has also been cloned from a mouse T cell clone.

AA Sequence

NWVNVISDLKKIEDLIQSMHIDATLYTESDVHPSCKVT
AMKCFLLELQVISLESGDASIHDTVENLIILANNSLSSN
GNVTESGCKECEEELEEKNIKEFLQSFVHIVQMFINTS

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

Accession	P40933
GeneID	3600
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 12.9 kDa, a single non-glycosylated polypeptide chain containing 114 amino acids.
Purity	> 97 % by SDS-PAGE and HPLC analyses.
Biological Activity	Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The ED ₅₀ for this effect is 0.300-2.60 ng/mL. The specific activity of recombinant human IL-15 is ≥1.50 × 10 ⁸ units/mg, which is calibrated against the

	human IL-15 reference standard (NIBSC code: 95/554).
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/μg of rHuIL-15 as determined by LAL method.