

Recombinant Human Interleukin-15 GMP

Information

Gene ID	3600
Accession #	P40933
Alternate Names	IL-T
Source	Escherichia coli.
M.Wt	Approximately 12.9 kDa, a single non-glycosylated polypeptide chain containing 114 amino acids.
AA Sequence	NWVNVISDLK KIEDLIQSMH IDATLYTESD VHPSCKVTAM KCFLLELQVI SLESGDASIH DTVENLIILA NNSLSSNGNV TESGCKECEEE LEEKNIKEFL QSFVHIVQMF INTS
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - A minimum of 12 months when stored at ≤ -20 °C as supplied Refer to lot specific COA for the Use by Date - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4.
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.
Biological Activity	Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The ED for this effect is 0.300-2.60 ng/mL. The specific activity of recombinant human IL-15 is $\geq 1.50 \times 10$ units/mg, which is calibrated against the human IL-15 reference standard (NIBSC code: 95/554).
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	5 μ g	100 μ g	
Recombinant Human Interleukin-15 GMP	5 μ g	100 μ g	

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

- A minimum of 12 months when stored at ≤ -20 °C as supplied

Refer to lot specific COA for the Use by Date

- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

Quality Control

Purity	> 98 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 0.01 EU/ μ g of rHuIL-15 GMP as determined by LAL method.

Description

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 addition, 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.

Reference

1. Anderson DM, Johnson L, Glaccum MB, et al. 1995. Genomics, 25: 701-6
2. Krause H, Jandrig B, Wernicke C, et al. 1996. Cytokine, 8: 667-74
3. Chirifu M, Hayashi C, Nakamura T, et al. 2007. Nat Immunol, 8: 1001-7
4. Grabstein KH, Eisenman J, Shanebeck K, et al. 1994. Science, 264: 965-8
5. Giri JG, Ahdieh M, Eisenman J, et al. 1994. EMBO J, 13: 2822-30
6. Arena A, Merendino RA, Bonina L, et al. 2000. New Microbiol, 23: 105-12.



APEX BIO Technology
www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

