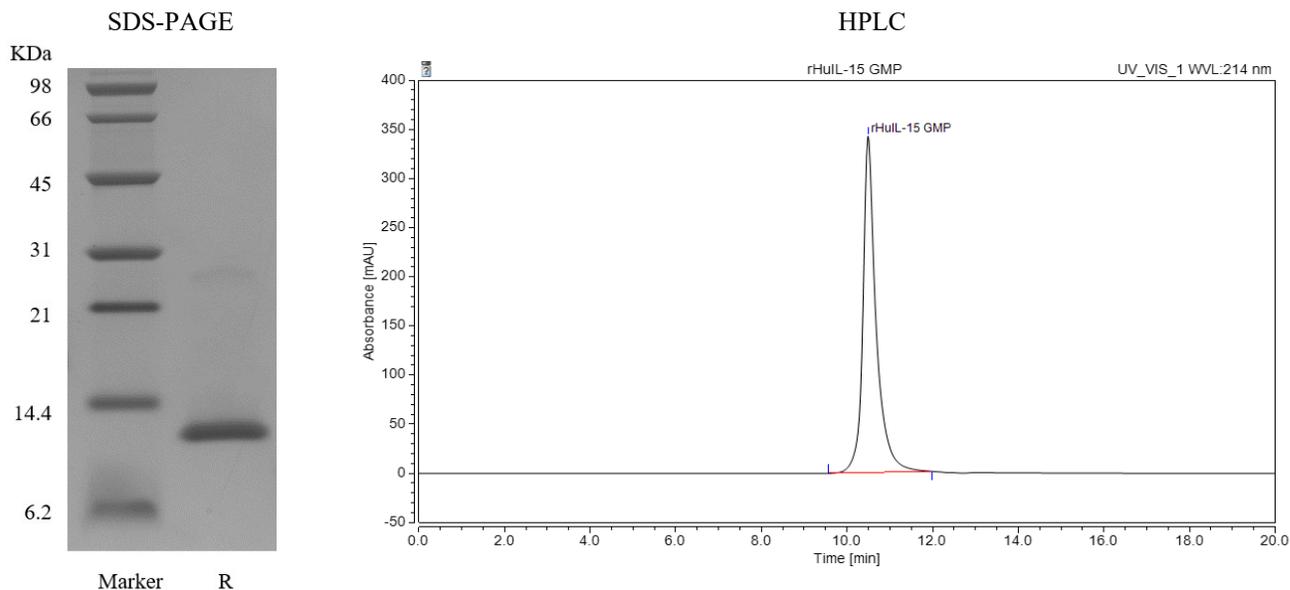


Catalog Number:	GMP-101-15
Source:	<i>Escherichia coli</i>
Molecular Weight:	Approximately 12.9 kDa, a single non-glycosylated polypeptide chain containing 114 amino acids.
Size:	5 µg/100 µg/1 mg
Sequence:	NWVNVISDLK KIEDLIQSMH IDATLYTESD VHPSCCKVTAM KCFLLELQVI SLESGDASIH DTVENLIILA NNSLSSNGNV TESGCKECEEE LEEKNIKEFL QSFVHIVQMF INTS
Purity:	> 98% 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 0.30-2.60 ng/mL. The specific activity of recombinant human IL-15 is > 1.50 × 10 ⁸ Units/mg, which is calibrated against rHuIL-15 WHO reference reagent (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 0.01 EU/µg of rHuIL-15 GMP as determined by LAL method.
Sterility:	Negative.
Mycoplasma:	Negative.
Host Cell Protein:	Less than 0.05% when tested by ELISA.
Host Cell DNA:	Less than 20 ng/mg when tested by qPCR.
In Vitro Virus Assay:	Negative.
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.
Shipping:	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 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.● Refer to lot-specific CoA for the Expiry Date.
Usage:	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory, or further evaluation purposes. NOT FOR HUMAN USE.
Quality Statement:	The manufacturing and testing of these products comply with ICH Q7 guidelines.



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.

Rev. 06/13/2023 V.6