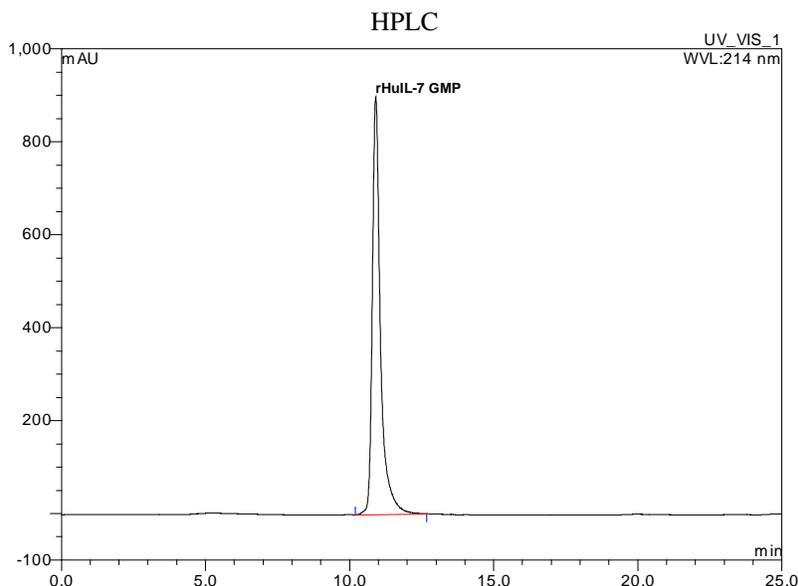
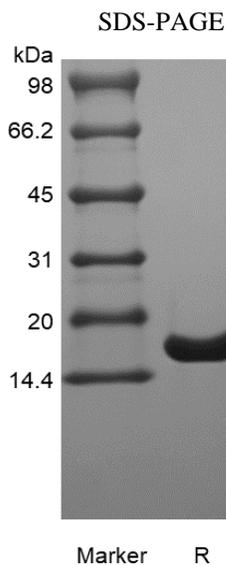


| | |
|---------------------------------|--|
| Catalog Number: | GMP-101-07 |
| Source: | <i>Escherichia coli</i> |
| Molecular Weight: | Approximately 17.4 kDa, a single non-glycosylated polypeptide chain containing 152 amino acids. |
| Size: | 5 µg/100 µg/1 mg |
| Sequence: | DCDIEGKDGK QYESVLMVSI DQLLDSMKEI GSNCLNNEFN FFKRHICDAN KEGMFLFRAA RKLRFKLMN STGDFDLHLL KVSEGTILL NCTGQVKGRK PAALGEAQPT KSLEENKSLK EQKKLNDLCF LKRLLEIKT CWNKILMGTK EH |
| Purity: | > 98% by SDS-PAGE and HPLC analyses. |
| Biological Activity: | Full biological activity when compared with standard protein by stimulating proliferation of PHA-activated human peripheral blood mononuclear cell (PBMC). The specific activity of recombinant human IL-7 is > 1.0 × 10 ⁸ Units/mg, which is calibrated against rHuIL-7 WHO reference reagent (NIBSC code: 90/530). |
| Physical Appearance: | Sterile filtered white lyophilized (freeze-dried) powder. |
| Formulation: | Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, 150 mM NaCl, pH 7.4. |
| Endotoxin: | Less than 0.01 EU/µg of rHuIL-7 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:

Interleukin-7 (IL-7) is encoded by the *IL7* gene and secreted by stromal cells in the red marrow and thymus. It binds to the IL-7 receptor, 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 also stimulates proliferation of B cells, T cells and NK cells. Murine IL-7 has approximately 65% amino acid sequence identity with human IL-7 and both proteins exhibit cross-species activity. IL-7 as an immunotherapy target has been examined in many human clinical trials for various malignancies and during HIV infection.

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