

Recombinant Human IL-15 Protein (GMP Grade)

Please read the manual carefully before use.

Cat. No. PM102

Version No. Version 2.0

Storage: at -20°C for two years.

Description

Interleukin-15 (IL-15) is a widely expressed cytokine that shares structural and functional similarities with IL-2, and it plays a critical role in various immune diseases [1]. IL-15 binds with high affinity to its receptor, IL-15R α , which is co-expressed on the cell surface [2-3]. It induces or enhances the differentiation, maintenance, and activation of diverse T cell subsets, including natural killer (NK) cells, natural killer T (NKT) cells, Th17 cells, regulatory T (Treg) cells, and CD8⁺ memory T cells. In stem cell culture protocols, IL-15 can be utilized in conjunction with other cytokines, such as IL-21, to enhance the efficiency of NK cell expansion and maturation [4].

Product Information

Expressed system: CHO

Molecular weight: 12.7 kDa

Purity: > 95% by SEC-HPLC, SDS-PAGE analysis.

Endotoxin: < 10 EU/mg

Biological activity: Measured in a cell proliferation assay using CTLL-2, ED₅₀ between 1-5 ng/ml.

Form: lyophilized, sterile

Kit Content

Component	PM102-01	PM102-02	PM102-03
Recombinant Human IL-15 Protein (GMP Grade)	10 μ g	50 μ g	1 mg

Usage guide

Reconstitution: We recommend the vial be briefly centrifuged prior to opening. Reconstitute with sterile, distilled water on ice at a concentration no less than 100 μ g/ml.

Storage: Lyophilized preparation at -20°C, preferably desiccated. Upon reconstitution, the protein may be stored at 2°C to 8°C for up to one week. For long term storage of the reconstituted protein, apportion into working aliquots and store at -80°C for up to 12 months. Avoid repeated freeze/thaw cycles.

References

- [1] Di Sabatino A, Calarota SA, Vidali F, MacDonald TT, Corazza GR. Role of IL-15 in immune-mediated and infectious diseases. *Cytokine Growth Factor Rev*, 2011, 22:19-33.
- [2] Giri JG, Kumaki S, Ahdieh M, Friend DJ, Loomis A, Shanebeck K, et al. Identification and cloning of a novel IL-15 binding-protein that is structurally related to the alpha-chain of the IL-2 receptor. *EMBO J*, 1995, 14(15):3654-63.
- [3] Dubois S, Mariner J, Waldmann TA, and Tagaya Y. IL-15 R α recycles and presents IL-15 In trans to neighboring cells. *Immunity*, 2002, 17:537-547.
- [4] Oberoi P, Kamenjarin K, Ossa JFV, Uherek B, Bönig H, and Wels WS. Directed Differentiation of Mobilized Hematopoietic Stem and Progenitor Cells into Functional NK cells with Enhanced Antitumor Activity. *Cells*, 2020, 9:811.

For research use only, not for clinical diagnosis.

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