Recombinant Human IL-2 Protein (GMP Grade)

Please read the manual carefully before use.

Cat. No. PM101

Version No. Version 2.0

Storage: at room temperature for two years.

Description

Interleukin-2 (IL-2), also referred to as T cell growth factor, was the first interleukin molecule to be cloned. It binds to the IL-2 receptor (IL-2R) and stimulates T cell proliferation, thereby enabling long-term survival of T cells in vitro [1]. Additionally, IL-2 enhances the proliferative and cytotoxic activity of natural killer (NK) cells by binding to IL-2R on their surface [2]. IL-2 is a pleiotropic cytokine that promotes the proliferation of tumor-infiltrating lymphocytes, stimulates B cell proliferation for immunoglobulin production, and activates macrophages to enhance their phagocytic function [3].

The recombinant human IL-2 protein consists of 134 amino acids and is produced in Chinese Hamster Ovary (CHO) cells. It is subsequently isolated, highly purified, and subjected to lyophilization.

Product Information

Expressed system: CHO

Molecular weight: 15.5 kDa

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

Endotoxin: < 10 EU/mg

Biological activity: Measured in a cell proliferation assay using CTLL-2. The biological activity is > 1×10^7 IU/mg.

Form: lyophilized, sterile

Kit Content

Component	PM101-01	PM101-02
Recombinant Human IL-2 Protein (GMP Grade)	1×10^6 IU/100 μg	1×10^7 IU/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 μg/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] Malek TR. The Biology of Interleukin-2. *Annual Review of Immunology* 2008, 26(1):453-479.

[2] Becker PSA, Suck G, Nowakowska P, Ullrich E, Seifried E, Bader P, Tonn T, Seidl C. Selection and expansion of natural killer cells for NK cell-based immunotherapy. *Cancer Immunology, Immunotherapy* 2016, 65(4):477-484.

[3] Gaffen S, Liu K. Overview of interleukin-2 function, production and clinical applications. *Cytokine* 2004, 28(3):109-123.

For research use only, not for clinical diagnosis.

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