Recombinant Human IL-2 Protein (GMP Grade)

Read the manual carefully before use.

Cat. No. PM101

Version No. Version 2.1

Storage: at -18˚C or below for two years

Description

Interleukin-2 (IL-2), the first cloned interleukin factor, also known as T-cell growth factor (TCGF), binds to the IL-2 receptor (IL-2R) to stimulate T cells into the cell division cycle, enabling long-term T-cell survival in vitro [1]. In addition to its effects on T cells, IL-2 can also bind to IL-2R on the surface of NK cells, enhancing their proliferation and cytotoxic activity [2]. As a pleiotropic cytokine, IL-2 further promotes the proliferation of tumor-infiltrating lymphocytes, induces B-cell proliferation and immunoglobulin production, and enhances macrophage phagocytic activity [3].

This product consists of 134 amino acid residues, expressed in CHO cells, and is lyophilized after isolation and highly purified.

Product Information

Expression System: CHO

Molecular Weight: 15.5 kDa

Purity: >95% by SEC-HPLC and SDS-PAGE

Endotoxin Concentration: <10 EU/mg

Biological Activity: >1×10^7 IU/mg, measured by CTLL-2 cell proliferation assay

Form: Sterile lyophilized powder

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

• The lyophilized powder is stable for 2 years when stored at -18°C or below.

• Reconstitution: Dissolve in sterile water for injection (WFI) or sterile ultrapure water to a final concentration of ≥100 μg/mL, then aliquot and store under the following conditions: -20°C (stable for 6 months), -80°C (stable for 12 months), or 2-8°C (stable for 1 week for short-term use). Avoid repeated freeze-thaw cycles to maintain stability.

• Recommended Working Concentrations:

T cell expansion in vitro: 100-500 IU/mL

NK cell expansion in vitro: 500-1000 IU/mL

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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