

Recombinant Human IL-12 Protein

Size / Cat.No.: 50 μ g / GMP-TL508-0050
100 μ g / GMP-TL508-0100
1mg / GMP-TL508-1000 (Customized)

Product Name

Generic Name Recombinant Human IL-12 Protein

Synonym IL12, p70, Interleukin-12

Product Information

Protein sequence	Recombinant human IL-12 is heterodimeric and composed of P29459-1 (IL12A) and P29460-1 (IL12B).
Expression Host	HEK293 cells
QC Testing Purity	> 90 % as determined by SDS-PAGE.
Activity	Measured by cell proliferation assay on PHA activated PBMC cells. The ED ₅₀ of this effect is \leq 0.2 ng/mL.
Endotoxin	< 0.1EU per 1 μ g of the protein by the LAL method.
Molecular Mass	The Recombinant Human IL-12 Protein predicts a molecular mass of 65 kDa.
Formulation	Lyophilized from sterile PBS, pH 7.4. Normally 6 % mannitol are added as protectants before lyophilization.
Stability & Storage	24 months at 2°C to 8°C in lyophilized state. 6 months at -20°C under sterile conditions after reconstitution. 12 months at -80°C under sterile conditions after reconstitution. Recommend to aliquot the protein into smaller quantities after reconstituting with water for injection, normal saline or PBS, and keep the diluted concentration above 100 μ g/mL. Avoid repeated freeze-thaw cycles.

Background

IL-12 is primarily produced by monocytes, macrophages, B cells and DCs. IL-12 is a heterodimeric cytokine encoded by two separate genes, IL-12A (p35) and IL-12B (p40). IL-12 receptors are located mainly on T cells and NK cells, and IL-12 can stimulate Th1 and NK cell growth, while inhibiting Th2 cell responses. IL-12 augments cytotoxicity of T lymphocytes and NK cells through the enhancement of IFN- γ and TNF- α secretion, and inhibition of IL-4 production.

References

1. Frazão JB, Colombo M, Simillion C, Bilican A, Keller I, Wüthrich D, Zhu Z, Okoniewski MJ, Bruggmann R, Condino-Neto A, Newburger (2019) Gene expression in chronic granulomatous disease and interferon- γ receptor-deficient cells treated in vitro with interferon- γ . J Cell Biochem.120(3):4321-4332.