

Product No. I-1270**Interleukin-12 (IL-12)****Human, Recombinant**Expressed in *Sf*21 Insect Cells**Description**

Interleukin-12 (IL-12) or Natural Killer Cell Stimulatory Factor (NKSF) is a disulfide-linked heterodimer of a 35 kD light chain subunit and 40 kD heavy chain subunit. The molecular weight of IL-12 is approximately 75 kD. The p35 subunit of IL-12 shares amino acid sequence homology with IL-6 and G-CSF.² The p40 subunit has homology to the extracellular domain of the IL-6 receptor and to the ciliary neurotrophic growth factor receptor.^{3,4} IL-12 is produced predominantly by monocytes and NK cells.¹ IL-12 induces T cells and NK cells to produce IFN- γ . Human IL-12 is not active on mouse cells, but mouse IL-12 is active on both mouse and human lymphocytes.⁴

Performance Characteristics

The biological activity of recombinant, human IL-12 is measured by its ability to stimulate the proliferation of PHA-activated human T lymphoblasts.⁵ The EC₅₀ is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Product InformationExpressed in *Sf*21 insect cells

Molecular Weight: approximately 75 kD

Purity: \geq 95% as determined by SDS-PAGEEC₅₀: 0.01 - 0.2 ng/mlPackage size: 5 μ gFormulation: Lyophilized from a 0.2 μ m-filtered solution of 20 mM Tris-HCl, pH 8.5, with 0.12 M NaCl .Carrier Protein: 250 μ g human serum albumin (HSA).Sterility: 0.2 μ m-filtered, aseptic fillEndotoxin: \leq 0.1 ng/ μ g IL-12**Reconstitution**

Reconstitute the contents of the vial using 0.2 μ m-filtered PBS containing 0.1% HSA or BSA to a concentration not less than 1 μ g/ml.

Storage

Prior to reconstitution, store at -20°C . After reconstitution, store at $2-8^{\circ}\text{C}$ for a maximum of 3 months. For extended storage, freeze in working aliquots at -70°C or -20°C . Repeated freezing and thawing is not recommended.

References

1. Trinchieri, G., et al., Progress in Growth Factor Research, **4**, 355, (1992).
2. Merberg, D., et al., Immunol. Today, **13**, 77 (1992).
3. Gearing, D., et al., Cell, **66**, 9 (1991).
4. Schoenhaut, D., et al., J. Immunol., **148**, 3433 (1992).
5. Stern, A., et al., Proc. Natl. Acad. Sci. USA, **87**, 6808 (1990).

BIOHAZARD: Handle as if capable of transmitting infectious agents. Refer to MSDS.

Source material tested and found negative for antibody to HIV and HBsAG.