



Interleukin-12, rat recombinant (rrIL-12-Sf9)

Catalog No: 87413
Lot No: XXXXX
Source: Baculovirus
Synonyms: NKSF, CTL maturation factor (TCMF), Cytotoxic lymphocyte maturation factor (CLMF), TSF, Edodekin-alpha, IL-12

Background

IL-12 is a heterodimeric cytokine that stimulates the production of interferon gamma from T-cells and natural killer cells, and also induces differentiation of Th1 helper cells. It is an initiator of cell-mediated immunity.

Description

Interleukin-12 rat recombinant produced in Sf9 insect cells is a glycosylated disulfide linked heterodimeric polypeptide containing 503 amino acids and having a molecular weight of 70 kDa comprised of disulfide-bonded 35 kDa (p35) and 40 kDa (p40) subunits. IL-12 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein (1 mg/ml) was lyophilized with no additives.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-12 in sterile 18 M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Interleukin-12, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL-12 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

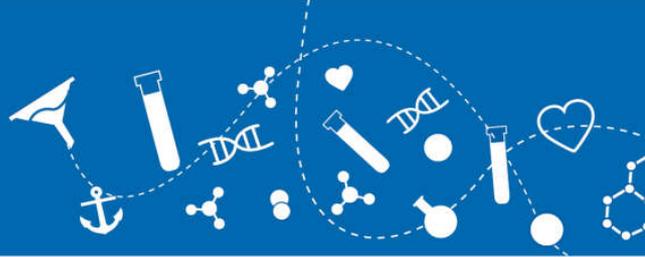
Greater than 95.0% as determined by SDS-PAGE.

Amino Acid Sequence

The sequence of the first five N-terminal amino acids was determined and found to be Arg-Val-Ile-Pro-Val at the p35 subunit and Met-Thr-Glu-Leu-Glu at the p40 subunit.

Activity

ED50 range = 0.01 - 0.05 ng/ml corresponding to a specific activity of 20,000,000 - 100,000,000 IU/mg as determined by the dose dependent secretion of interferon-gamma from PHA and IL-2 activated mouse splenocytes that have been costimulated with PMA. Optimal concentration for individual application should be determined by a dose response assay.



Usage

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