



Interleukin-12, insect cells, mouse recombinant (rIL-12-Sf9)

Catalog No: 97494
Lot No: XXXXX
Source: Sf9, Insect Cells
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 mouse recombinant produced in Sf9 insect cells is a glycosylated disulfide linked heterodimeric polypeptide containing 506 amino acids and having a molecular weight of 75 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 was lyophilized from 0.5 x PBS, pH 7.5.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-12 in sterile distilled pyrogen free water at 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized IL-12, although stable at room temperature for 3 weeks, should be stored 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% as determined by SDS-PAGE.

Amino Acid Sequence

p35 Subunit:

RVIPVSGPAR CLSQSRNLLK TTDDMVKTAR EKLKHYSCTA EDIDHEDITR DQTSTLKTCL PLELHKNESE LATRETSSTT
RGSCLPQKT SLMMTLCLGS IYEDLKMYQT EFQAINAALQ NHHHQIILD KGMLVAIDEL
MQSLNHNGET LRQKPPVGEA DPYRVKMKLC ILLHAFSTRV VTINRVMGYL SSA

p40 Subunit:

MWELEKDVYV VEVDWTPDAP GETVNLTCDT PEEDDITWTS DQRHGVISSG KTLTITVKEF LDAGQYTCHK GGETLSHSHL
LLHKKENGIW STEILKNFKN KTFKCEAPN YSGRFTCSWL VQRNMDLKFN IKSSSSSPDS RAVTCGMASL SAEKVTLDQR
DYEKYSVSCQ EDVTCPTAEE TLPIELALEA RQONKYENYS TSFFIRDIK PDPPKNLQMK PLKNSQVEVS WEYPDSWSTP
HSYFSLKFFV RIQRKKEKMK ETEEGCNQKG AFLVEKTSTE VQCKGGNVCV QAQDRYNS CSKWACVPCR VRS

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Activity

Mouse IL-12 has full biological activity when compared to standards. The ED50 is determined by the dose-dependent induced expression of CD25 on CD8+ mouse T cells is 10 - 20 ng/ml corresponding to a specific activity of 50,000 - 100,000 units/mg.

Usage

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