



Interleukin-12, HEK, human recombinant (rHuIL-12-HEK)

Catalog No: 99870
Lot No: XXXXX
Source: HEK293
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. IL-12 is an initiator of cell-mediated immunity.

Description

Interleukin-12 human recombinant produced in HEK cells is a glycosylated heterodimer, having a total molecular weight of 57 kDa. IL12 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The IL-12 was lyophilized from a 0.2 µm filtered solution containing 1xPBS.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-12 in sterile PBS containing 0.1% endotoxin-free recombinant HSA.

Stability

Lyophilized IL-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% as determined by SDS-PAGE.

Amino Acid Sequence

IL-12 is a heterodimer of IL-12A and IL-12B linked through a disulfide-bond between cysteines in the sequences below.

IL-12 A:

RNLPVATPDP GMFPCLHHSQ NLLRAVSNML QKARQTLEFY PCTSEEIDHE DITKDKTSTV EACLPLELTK NESCLNSRET
SFITNGSCLA SRKTSFMMAL CLSSIIYEDLK MYQVEFKTMN AKLLMDPKRQ IFLDQNMLAV IDELMQALNF NSETVPOKSS
LEEPDFYKTK IKLCILLHAF RIRAVTIDRV MSYLNAS

IL-12B:

IWELKKDVYV VELDWPDPAD GEMVVLTCDT PEEDGITWTL DQSSEVLGSG KTLTIQVKEF GDAGQYTCHK GGEVLSHSL
LLHKKEDGIW STDILKDQKE PKNKTFRLRCE AKNYSGRFTC WWLTTISTDL TFSVKSSRGS SDPQGVTCGA ATLSAERVRG
DNKEYEYSVE CQEDSACPAA EESLPIEVMV DAVHKLKYEN YTSSFFIRDI IKPDPPKNLQ LKPLKNSRQV EVSWEYPTW
STPHSYFSLT FCVQVQGKSK REKKDRVFTD KTSATVICRK NASISVRAQD RYYSSSWSEW ASVPCS

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Activity

The specific activity was determined by the dose-dependent release of IFN-gamma from the human NK92 cell line in presence of 20 ng/ml rIL-2. The ED₅₀ is 0.5 ng/ml.

Usage

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