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IL12 Human, Sf9

Interleukin-12 Human Recombinant, Sf9
CYK0365

Product Overview

Name	IL12 Human, Sf9

Description

Interleukin-12 Human Recombinant, Sf9

Synonyms

23-219aa (IL12A) / 23-328aa (IL12B), Interleukin 12 (subunit beta/alpha), IL12 His, NKSF1, NKSF, CTL maturation factor (TCMF), Cytotoxic lymphocyte maturation factor (CLMF), TSF, Edodekin-alpha, IL-12.

Introduction

interleukin 12 subunit beta/alpha or IL12b/IL12a is a growth factor cytokine which increases the lytic activity of NK/lymphokine-activated killer cells, activated T and NK cells and prompt IFN-gamma production (through resting PBMC). IL12b/IL12a is an essential part to the process of cellular-immunity and activates the differentiation of Th1 cells originates from the precursor T helper cells. The protein is linked to IL23A and creates the IL-23 interleukin, by that, the autoimmune inflammation is induced and autoimmune inflammatory diseases and tumorigenesis are being affected.

Source

Baculovirus.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.2.

Stability

Lyophilized Interleukin 12 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution PDGF BB should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

Purity

Greater than 97.0% as determined by analysis by SDS-PAGE.

Amino acid sequence

IL-12 is a heterodimer of IL-12A and IL-12B linked through a disulfide-bond: >IL-12 ARNLPVATP DPGMFPCLHH SQNLLRAVSN MLQKARQTLE FYPCTSEEID HEDITKDKTS TVEACLPLEL TKNESCLNSR ETSFITNGSC

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LASRKTSFMM ALCLSSIYED LKMYQVEFKT MNAKLLMDPK RQIFLDQNML AVIDELMQAL NFNSETVPQK SSLEEPDFYK TKIKLCILLH AFRIRAVTID RVMSYLNAS. >IL-12B IWELKKDV YVVELDWYPD APGEMVVLTC DTPEEDGITW TLDQSSEVLG SGKTLTIQVK EFGDAGQYTC HKGGEVLSHS LLLLHKKEDG IWSTDILKDQ KEPKNKTFLR CEAKNYSGRF TCWWLTTIST DLTFSVKSSR GSSDPQGVTC GAATLSAERV RGDNKEYEYS VECQEDSACP AAEESLPIEV MVDAVHKLKY ENYTSSFFIR DIIKPDPPKN LQLKPLKNSR QVEVSWEYPD TWSTPHSYFS LTFCVQVQGK SKREKKDRVF TDKTSATVIC RKNASISVRA QDRYYSSSWS EWASVPCS.

Biological Activity

Determined by cell proliferation assay using PHA-stimulated human T lymphoblasts. The ED50 for this effect is 0.01-0.05 ng/mL corresponding to a specific activity of 11,000 units/ µg.

Solubility

It is recommended to reconstitute the lyophilized Interleukin 12 in sterile 18MΩ-cm H 2 O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Precautions

IL12 Human, Sf9 is for research use only and not for use in diagnostic or therapeutic procedures.