



## Technical Data Sheet

### Recombinant Human Interleukin-12 (rHu IL-12)

#### Human Interleukin-12

Interleukin 12, also known as natural killer cell stimulatory factor (NKSF) or cytotoxic lymphocyte maturation factor (CLMF), is a pleiotropic cytokine originally identified in the medium of activated human B lymphoblastoid cell lines. The p40 subunit of IL-12 has been shown to have extensive amino acid sequence homology to the extracellular domain of the human IL-6 receptor while the p35 subunit shows distant but significant sequence similarity to IL-6, G-CSF, and chicken MGF. These observations have led to the suggestion that IL-12 might have evolved from a cytokine/soluble receptor complex. Human and murine IL-12 share 70% and 60% amino acid sequence homology in their p40 and p35 subunits, respectively. IL-12 apparently shows species specificity with human IL-12 reportedly showing minimal activity in the murine system.

Catalog Number:	RC212-23
Source:	<i>CHO</i>
Molecular Weight:	Approximately 75 kDa, consisting of a 306 amino acid residue p40 subunit and a 197 amino acid residue p35 subunit.
Quantity:	2ug/10ug/1mg
Purity:	>98% by SDS-PAGE and HPLC analyses.
Biological Activity:	Measured by its ability to stimulate the proliferation of PHA-activated human T lymphoblasts. The ED <sub>50</sub> for this effect is 0.1-0.2 ng/mL.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
AA Sequence:	p35 Subunit: RNLVATPDP GMFPCLLHHSQ NLLRAVSNML QKARQTLEFY PCTSEEDHE DITKDKTSTV EACLPLELTK NESCLNSRET SFITNGSCLA SRKTSFMMAL CLSSIYEDLK MYQVEFKTMN AKLLMDPKRQ IFLDQNM LAV IDELMOALNF NSETVPOKSS LEEPDFYKTK IKLCILLHAF RIRAVTIDRV MSYLNAS p40 Subunit: IWELKKDVVV VELDWPDPAP GEMVVLTCDT PEEDGITWTL DOSSEVLGSG KTLTIQVKEF GDAGQYTCHK GGEVLSHLL LLHKKEDGIW STDILKDOKE PKNKTFRLRCE AKNYSGRFTC WWLTTISTDL TFSVKSSRGS SDPOGVTCGA ATLSAERVRG DNKEYEYSVE COEDSACPAE EESLPIEVMV DAVHKLKYEN YTSSFFIRDI IKPDPKLNQ LKPLKNSRQV EVSWEYPDTW STPHSYFSLT FCVQVQGKSK REKKDRVFTD KTSATVICRK NASISVRAQD RYSSSWSEW ASVPCS
Endotoxin:	Less than 1EU/µg of rHuIL-12 as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20°C. Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long



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term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

Usage:

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