

## IL12A / IL12B

### Recombinant Human Interleukin-12

<b>Catalog No.</b>	CRI111A	<b>Quantity:</b>	2 µg
	CRI111B		10 µg

**Alternate Names:** NKSF, TCMF, CLMF, TSF, Edodekin-alpha

**Description:** Recombinant Human IL-12 is a glycosylated heterodimeric polypeptide containing 503 amino acids. Interleukin-12 (IL-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.

**Gene ID:**  
p35: 3592  
p40: 3593

**Source:** CHO cells

**Molecular Weight:** Approximately 75 kDa, consisting of a 306 amino acid residue p40 subunit and a 197 amino acid residue p35 subunit.

**Formulation:** Lyophilized from a sterile filtered solution containing PBS, pH 7.4

**Purity:** >95% by HPLC and SDS-PAGE analyses

**Endotoxin Level:** <1 EU/µg of Recombinant Human IL-12

**Biological Activity:** Fully biologically active when compared to standard. The ED50 determined by a cell proliferation assay using PHA-activated human T lymphoblasts is less than 0.2 ng/ml.

**Specific Activity:** >5.0 x 10<sup>6</sup> IU/mg

**Amino Acid Sequence:**  
p35 Subunit: RNLPVATPDP GMFPCLLHHSQ NLLRAVSNML QKARQTLEFY  
PCTSEEIDHE DITKDKTSTV EACLPLELTK NESCLNSRET SFITNGSCLA  
SRKTSFMMAL CLSSIEDLK MYQVEFKTMN AKLLMDPKRQ IFLDQNMALAV  
IDELMQALNF NSETVPQKSS LEEPDFYKTK IKLCILLHAF RIRAVTIDRV MSYLNAS  
p40 Subunit: IWELKKDVYV VELDWPDPAP GEMVVLTCDDT PEEDGITWTL  
DQSSEVLGSG KTLTIQVKEF GDAGQYTCHK GGEVLSHSL LLHKKEDGIW  
STDILKDQKE PKNKTLRCE AKNYSGRFTC WWLTTISTDL TFSVKSSRGS  
SDPQGVTCGA ATLSAERVRG DNKEYEYSVE CQEDSACPAE EESLPIEVMV  
DAVHKLKYEN YTSSFFIRDI IKPDPPKNLQ LKPLKNSRQV EVSWEYPDTW  
STPHSYFSLT FCVQVQGKSK REKKDRVFTD KTSATVICRK NASISVRAQD  
RYYSSSWSEW ASVPCS

**Reconstitution:** **Centrifuge vial prior to opening.** Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/mL. Further dilutions should be made in appropriate buffered solutions.

**Storage & Stability:**



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Stable at 2-8°C, but best kept desiccated -20°C. Upon reconstitution, stable for up to 1 week at 2-8°C. For longer term, store in working aliquots at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**

**NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.**



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