



## IL-12 Recombinant Protein

CATALOG NUMBER: 40-255

### Specifications

<b>SPECIES:</b>	Human
<b>SOURCE SPECIES:</b>	CHO cells
<b>SEQUENCE:</b>	p35 Subunit: RNLPVATPDP GMFPCLHHSQ NLLRAVSNML QKARQTLEFY PCTSEEIDHE DITKDKTSTV EACLPLELTK NESCLNSRET SFITNGSCLA SRKTSFMMAL CLSSIYEDLK MYQVEFKTMN AKLLMDPKRQ IFLDQNMLAV IDELMQALNF NSETVPQKSS LEEPDFYKTK IKLCILLHAF RIRAVTIDRV MSYLNAS p40 Subunit: IWELKKDVYV VELDWPDP GEMVLTCDT PEEDGITWTL DQSSEVLGSG KTLTIQVKEF GDAGQYTCHK GGEVLSHSL LLHKKEDGIW STDILKDQKE PKNKTLRCE AKNYSGRFTC WWLTTISTDL TFSVKSSRGS SDPQGVTCGA ATLSAERVRG DNKEYEYSVE CQEDSACPAE EESLPIEVMV DAVHKLKYEN YTSSFFIRDI IKPDPKLNQ LKPLKNSRQV EVSWEYPDTW STPHSYFSLT FCVQVQGKSK REKKDRVFTD KTSATVICRK NASISVRAQD RYSSSSWSEW ASVPCS
<b>TESTED APPLICATIONS:</b>	
<b>BIOLOGICAL ACTIVITY:</b>	The ED50 was determined by the induction of IFN - gamma from NK cells co - stimulated with IL - 18 is $\leq 1.0$ ng/mL, corresponding to a specific activity of $\geq 1 \times 10^6$ units/mg.

### Properties

<b>PURITY:</b>	Greater than 98% by SDS-PAGE gel and HPLC analyses.  Endotoxin level is less than 0.1 ng per ug (1EU/ug).
<b>PHYSICAL STATE:</b>	Lyophilized
<b>STORAGE CONDITIONS:</b>	The lyophilized IL-12 recombinant protein is stable for at least 2 years from date of receipt at -20°C. Reconstituted IL-12 is stable for at least 3 months when stored in working aliquots with a carrier protein at -20°C. As with any protein, exposing IL-12 recombinant protein to repeated freeze / thaw cycles is not recommended. When working with proteins care should be taken to keep recombinant protein at a cool and stable temperature.

### Additional Info

<b>ALTERNATE NAMES:</b>	P35, CLMF, NFSK, NKSF1, IL-12A, Interleukin-12 subunit alpha, Cytotoxic lymphocyte maturation factor 35 kDa subunit
<b>ACCESSION NO.:</b>	NP_000873.2
<b>PROTEIN GI NO.:</b>	24430219

### Background

IL-12 is a potent regulator of cell mediated immune responses and it induces IFN- $\gamma$  production by NK and T cells. It is produced by activated monocytes/macrophage cells, B lymphocytes and connective tissue type mast cells. Among its biological activities IL-12 promotes the growth and activity of activated NK, CD4+ and CD8+ cells and induces the development of IFN- $\gamma$  producing Th1 cells. Recombinant Human IL-12 is a 75.0 kDa heterodimeric glycoprotein consisting of disulfide-linked 35 kDa (p35) and 40 kDa (p40) subunits (503 total amino acid residues).

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