



Recombinant Human IL-12p70

20180503BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-440S
Size:	2 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	3592
Synonyms:	Interleukin-12, NKSF, CTL Maturation Factor (TCMF), Cytotoxic Lymphocyte Maturation Factor (CLMF), TSF

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 p70, derived from HEK293 cells, is a heterodimeric glycoprotein consisting of disulfide-linked p35 and p40 subunits (503 total amino acid residues). The calculated molecular weight of Human IL-12 p70 is 57.2 kDa; however, due to glycosylation, it migrates at an apparent molecular weight of 65-70 kDa based on SDS-PAGE gel, under non-reducing conditions.

Sequence

P35 SUBUNIT: RNLPVATPDP GMFPCLHHSQ NLLRAVSNML
 QKARQTLEFY PCTSEEIDHE DITKDKTSTV EACLPLELTK
 NESCLNSRET SFITNGSCLA SRKTSFMMAL CLSIIYEDLK
 MYQVEFKTMN AKLLMDPKRQ IFLDQNLAV IDELMQALNF
 NSETVVPQKSS LEEPFDYKTK IKLCILHAF RIRAVTIDRV MSYLNAS
 P40 Subunit: IWELKKDVYV VELDWYPDAP GEMVVLTCDT
 PEEDGITWTL DQSSEVLGSG KTLTIQVKEF GDAGQYTCHK
 GGEVLSHSL LHKKEDGIW STDILKDQKE PKNKTFLRCE
 AKNYSGRFTC WWLTTISTDL TFSVKSSRGS SDPQGVTCGA
 ATLSAERVRG DNKEYEYSVE CQEDSACPAA EESLPIEVMV
 DAVHKLKYEY YTSFFFIRDI IKPDPKPNLQ LKPLKNSRQV
 EVSWEYPTDW STPHSYFSLT FCVQVQGKSK REKKDRVFTD
 KTSATVICRK NASISVRAQD RYSSSWSEW ASVPCS

Database References

Protein RefSeq:	NP_002178.2
Uniprot ID:	P29460
mRNA RefSeq:	NM_002187.2

Product Specifications

Expressed in	E. coli
Purity	> 98% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng/µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	503 (p35/p40)
MW:	57,2 kDa



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Determined by its ability to increase IFN-gamma production by anti-TCR mAb-stimulated PBMCs.