

Recombinant Human IL12A & IL12B protein, His-tagged

Cat. No. IL12A & IL12B-261H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL12A & IL12B(23-328/23-219aa) fused with His tag at C-terminal was expressed in Insect cells.
Species	Human
Source	Insect Cells
ProteinLength	23-328/23-219aa
Description	IL12 is a cytokine that acts on T and natural killer cells, and has a broad array of biological activities. It is a disulfide-linked heterodimer composed of the 40 kD cytokine receptor like subunit and a 35 kD subunit. This cytokine is expressed by activated macrophages that serve as an essential inducer of Th1 cells development. IL12 has been found to be important for sustaining a sufficient number of memory/effector Th1 cells to mediate long-term protection to an intracellular pathogen.
Form	Liquid. In Phosphate buffered saline (pH7.4), 20% glycerol, 1mM EDTA
Molecular Mass	34.6kDa (p40) & 23.3kDa (p35) (306aa & 203aa) The heterodimeric IL12 has a predicted molecular weight of 57.9kDa (509aa). Molecular weight on SDS-PAGE will appear higher.
AA Sequence	IL-12 is a heterodimer of IL12A and IL12B linked through a disulfide-bond between cysteines in red in below sequences.> IL12A(p35)RNLPVATPDP GMFPCLHHSQ

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NLLRAVSNML QKARQTLEFY PCTSEEDHE DITKDKTSTV EACLPLELTK
 NESCLNSRET SFITNGSCLASRKTSFMMAL CLSSIEDLK MYQVEFKTMN
 AKLLMDPKRQ IFLDQNMALV IDELMQALNF NSETVPQKSS LEEPDFYKTK
 IKLCILLHAFRIRAVTIDRV MSYLNASHHH HHH> IL12B(p40)IWELKKDVYV
 VELDWYPDAP GEMVVLTCDT PEEDGITWTL DQSSEVLGSG KTLTIQVKEF
 GDAGQYTCHK GGEVLSHSL LLHKKEDGIWSTDILKDQKE PKNKTFLRCE
 AKNYSGRFTC WWLTTISTDL TFSVKSSRGS SDPQGVTCGA ATLSAERVRG
 DNKEYEYSVE CQEDSACPAAEESLPIEVMV DAVHKLKYEN YTSSFFIRDI
 IKPDPPKNLQ LKPLKNSRQV EVSWEYPDTW STPHSYFSLT FCVQVQGKSK
 REKKDRVFTDKTSATVICRK NASISVRAQD RYYSSSWSEW ASVPCS

Purity > 85% by SDS - PAGE

Storage Can be stored at 4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

Concentration 0.2 mg/ml (determined by BCA assay)

GENE INFORMATION

Gene Name IL12A interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) [Homo sapiens]

Official Symbol IL12A

Synonyms IL12A; interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35); NKSF1; interleukin-12 subunit alpha; CLMF; cytotoxic lymphocyte maturation factor 1; p35; IL 12; subunit p35; IL 12A; IL35 subunit; interleukin 12; interleukin 12 alpha chain; natural killer cell stimulatory factor 1; 35 kD

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subunit; NF cell stimulatory factor chain 1; NFSK; CLMF p35; IL-12 subunit p35; IL-12, subunit p35; interleukin 12, p35; interleukin-12 alpha chain; NK cell stimulatory factor chain 1; cytotoxic lymphocyte maturation factor 1, p35; cytotoxic lymphocyte maturation factor 35 kDa subunit; natural killer cell stimulatory factor 1, 35 kD subunit; P35; IL-12A;

Gene ID [3592](#)

mRNA Refseq [NM_000882](#)

Protein Refseq [NP_000873](#)

MIM [161560](#)

UniProt ID [P29459](#)

Chromosome Location 3p12-q13.2

Pathway African trypanosomiasis, organism-specific biosystem; African trypanosomiasis, conserved biosystem; Allograft rejection, organism-specific biosystem; Allograft rejection, conserved biosystem; Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Chagas disease (American trypanosomiasis), organism-specific biosystem;

Function contributes_to cytokine activity; contributes_to cytokine activity; contributes_to growth factor activity; contributes_to growth factor activity; interleukin-12 beta subunit binding; interleukin-12 receptor binding; interleukin-27 binding; protein binding; protein heterodimerization activity;

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