

Active Recombinant Human IL12B Protein

Cat. No. IL12B-1811 Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL12B Protein without tag was expressed in HEK 293.
Species	Human
Source	HEK293
Description	<p>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 mouse 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 mouse system.</p>
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	EC50 < 2 ng/mL, measured by the induction of IFN-γ from NK cells co-stimulated with IL-18, corresponding to a specific activity of > 1 × 10 ⁶ units/mg.
Molecular Mass	Approximately 75 kDa, consisting of a 306 amino acid residue p40 subunit and a 197 amino acid residue p35 subunit.

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AA Sequence

p35:RNLPVATPDPGMFPCLHHSQNLLRAVSNMLQKARQTLEFYPTCTSEEIDHEDITK
 DKTSTVEACLPLELTKNESCLNSRETSFITNGSCLASRKTSFMMALCLSSIEDLKMY
 QVEFKTMNAKLLMDPKRQIFLDQNMLAVIDELMQALNFNSETVPQKSSLEEDFYKT
 KIKLCILLHAFRIRAVTIDRVMSYLNAS

p40:IWELKKDVYVVELDWYPDAPGEMVVLTCDTPEEDGITWTLTLDQSSEVLGSGKTL
 TIQVKEFGDAGQYTCHKGGVLSHSLLLHKKEDGIWSTDILKDQKEPKNKTFLRCE
 AKNYSGRFTCWLLTTISTDLTFSVKSSRGSSDPQGVTCGAATLSAERVRGDNKEYE
 YSVEQCQEDSACPAAEESLPIEVMVDAVHKLKYENYSSFFIRDIIKPDPPKNLQLKPLK
 NSRQVEVSWEYPDTWSTPHSYFSLTFCVQVQGKSKREKKDRVFTDKTSATVICRKN
 ASISVRAQDRYYSSSWSEWASVPCS

Endotoxin < 0.2 EU/μg, determined by LAL method.

Purity > 95% as analyzed by SDS-PAGE and HPLC.

Storage Lyophilized recombinant Human Interleukin 12(IL-12) remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, rh-IL12 should be stable up to 1 week at 4 centigrade or up to 2 months at -20 centigrade.

Storage Buffer Lyophilized after extensive dialysis against PBS.

Reconstitution Reconstituted in ddH₂O or PBS at 100 μg/mL.

GENE INFORMATION

Gene Name IL12B interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40) [Homo sapiens]

Official Symbol IL12B

Synonyms IL12B; interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte

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maturation factor 2, p40); NKSF2; interleukin-12 subunit beta; CLMF; CLMF2; cytotoxic lymphocyte maturation factor 2; p40; IL 12B; IL12; subunit p40; interleukin 12; interleukin 12 beta chain; natural killer cell stimulatory factor; 40 kD subunit; natural killer cell stimulatory factor 2; NKSF; CLMF p40; IL-12 subunit p40; IL12, subunit p40; interleukin 12, p40; interleukin-12 beta chain; NK cell stimulatory factor chain 2; cytotoxic lymphocyte maturation factor 40 kDa subunit; natural killer cell stimulatory factor, 40 kD subunit; IL-12B;

Gene ID [3593](#)

mRNA Refseq [NM_002187](#)

Protein Refseq [NP_002178](#)

MIM [161561](#)

UniProt ID [P29460](#)

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