

# Recombinant Human IL12A protein

**Cat. No.** IL12A-26973TH **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant Human IL12A protein was expressed in CHO.
<b>Species</b>	Human
<b>Source</b>	CHO
<b>ProteinLength</b>	525
<b>Description</b>	<p>Interleukin-12 (IL-12), also known as NKSF or 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.</p>
<b>Form</b>	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
<b>Bio-activity</b>	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using PHA-activated human T lymphoblasts is less than 0.05 ng/ml, corresponding to a specific activity of > 2.0 × 10 <sup>7</sup> IU/mg.

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<b>Molecular Mass</b>	Approximately 75 kDa, consisting of a 306 amino acid residue p40 subunit and a 197 amino acid residue p35 subunit.
<b>AA Sequence</b>	<p>p35Subunit:RNLPVATPDPMFPCLLHHSQNLLRAVSNMLQKARQTLEFYPTCTSEEID  HEDITKDKTSTVEACLPLELTKNESCLNSRETSFITNGSCLASRKTSFMMALCLSSIYE  DLKMYQVEFKTMNAKLLMDPKRQIFLDQNMLAVIDELMQALNFNSETVPQKSSLEEP  DFYKTKIKLCILLHAFRIRAVTIDRVMSYLNASp40Subunit:IWELKKDVYVVELDWYPD  APGEMVVLTCDTPEEDGITWTLQDSSEVLGSGKTLTIQVKEFGDAGQYTCHKGGEV  LSHSLLLLHKKEDGIWSTDILKDQKEPKNKTFLRCEAKNYSGRFTCWLLTTISTDLTF  SVKSSRGSSDPQGVTGGAATLSAERVGRDNKEYEYSVEQCEDSACPAAEESLPIEV  MVDVHKLKYENYTSSFFIRDIKPDPPKNLQLKPLKNSRQVEVSWEYPDTWSTPHS  YFSLTFCVQVQGKSKREKKDRVFTDKTSATVICRKNASISVRAQDRYSSSWSEWA  SVPCS</p>
<b>Endotoxin</b>	Less than 1 EU/g of rHuIL-12 as determined by LAL method.
<b>Purity</b>	>95% by SDS-PAGE and HPLC analysis.
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

## GENE INFORMATION

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<b>Gene Name</b>	IL12A
<b>Official Symbol</b>	IL12A
<b>Synonyms</b>	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 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;
<b>Gene ID</b>	3592
<b>mRNA Refseq</b>	NM_000882
<b>Protein Refseq</b>	NP_000873
<b>MIM</b>	161560
<b>UniProt ID</b>	P29459

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