

Active Recombinant Human IL12A protein

Cat. No. IL12A-4327HG **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL12 Protein is produced by CHO expression system.
Species	Human
Source	CHO
Description	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.
Form	Lyophilized from a 0.2 µ filtered concentrated solution in PBS, pH 7.4.
Bio-activity	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 $> 2.0 \times 10^7$ IU/mg.
Molecular Mass	75 kDa

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AA Sequence	p35Subunit :RNLPVATPD PGMFPC LHHS QNLLRAVS NM LQKARQTLEF YPCTSEEIDH EDITKDKTST VEACLPLELT KNESCLNSRE TSFITNGSCL ASRKTSFMMA LCLSSIEDL KMYQVEFKTM NAKLLMDPKR QIFLDQNMLA VIDELMQALN FNSETVPQKS SLEEPDFYKT KIKLCILLHA FRIRAVTIDR VMSYLNASp4 0Subunit:I WELKKDVYVV ELDWYPDAPG EMVVLTC DTP EEDGITWTLD QSSEVLGSGK TLTIQVKEFG DAGQYTCHKG GEVLSHSLLL LHKKEDGIWS TDILKDQKEP KNKTFLRCEA KNYSGRFTCW WLTISTDLT FSVKSSRGSS DPQGVTCGAA TLSAERVGRD NKEYEYSVEC QEDSACPAAE ESLPIEVMVD AVHKLKYENY TSSFFIRDII KPDPPKNLQL KPLKNSRQVE VSWEYPDTWS TPHSYFSLTF CVQVQGKSKR EKKDRVFTDK TSATVICRKN ASISVRAQDR YYSSSWSEWA SVPCS
Endotoxin	Less than 1 EU/g of rHuIL-12 as determined by LAL method.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70 °C as supplied. - 1 month, 2 to 8 °C under sterile conditions after reconstitution. - 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Reconstitution	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 °C. Further dilutions should be made in appropriate buffered solutions.
GENE INFORMATION	
Gene Name	IL12A interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte

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	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 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

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