

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Human Interleukin-12 (rHuIL-12)

Catalog Number: PR1059

Source: CHO

Quantity: 2µg/10µg/1.0mg

Description

Interleukin 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 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.

Molecular Weight:

Approximately 75 kDa, consisting of a 306 amino acid residue p40 subunit and a 197 amino acid residue p35 subunit.

Purity:

>95% by SDS-PAGE and HPLC analyses.

Biological Activity:

Measured by its ability to stimulate the proliferation of PHA-activated human T lymphoblasts. The ED50 for this effect is 0.1-0.2 ng/mL, corresponding to a Specific Activity of $\square 5 \times 10^6$ IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2mm filtered concentrated solution in PBS, pH 7.4.

AA Sequence:

p35 S ubunit: R N L P V A T P D P G M F P C L H H S Q N
L L R A V S N M L Q K A R Q T L E F Y P C T S E E I D
H E D I T K D K T S T V E A C L P L E L T K N E S C L N
S R E T S F I T N G S C L A S R K T S F M M A L C L S S
I Y E D L K M Y Q V E F K T M N A K L L M D P K R Q I
F L D Q N M L A V I D E L M Q A L N F N S E T V P Q K
S S L E E P D F Y K T K I K L C I L L H A F R I R A V T I
D R V M S Y L N A S p40 S ubunit: I W E L K K D V Y V
V E L D W Y P D A P G E M V V L T C D T P E E D G I T
W T L D Q S S E V L G S G K T L T I Q V K E F G D A G
Q Y T C H K G G E V L S H S L L L L H K K E D G I W S
T D I L K D Q K E P K N K T F L R C E A K N Y S G R F
T C W W L T T I S T D L T F S V K S S R G S S D P Q G
V T C G A A T L S A E R V R G D N K E Y E Y S V E C
Q E D S A C P A A E E S L P I E V M V D A V H K L K Y
E N Y T S S F F I R D I I K P D P P K N L Q L K P L K N
S R Q V E V S W E Y P D T W S T P H S Y F S L T F C V
Q V Q G K S K R E K K D R V F T D K T S A T V I C R K
N A S I S V R A Q D R Y Y S S S W S E W A S V P C S

Endotoxin:

Less than 1EU/mg of rHuIL-12 as determined by LAL method.

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

MADE IN CHINA

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to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $<-20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at $2-8^{\circ}\text{C}$, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one

week at $2-8^{\circ}\text{C}$. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C . Avoid repeated freeze/thaw cycles.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

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