

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Human Interleukin-21 (rHuIL-21)

Catalog Number: PR1067

Source: Escherichia coli.

Quantity: 2µg/10µg/1.0mg

Description

IL-21 is a pleiotropic cytokine produced by CD4⁺ T cells in response to antigenic stimulation. Its action generally enhances antigen-specific responses of immune cells. The biological effects of IL-21 include induction of differentiation of T-cells-stimulated B-cells into plasma cells and memory B-cells, stimulation (in conjunction) with IL-4 of IgG production, and induction of apoptotic effects in naïve B-cells and stimulated B-cells in the absence of T-cell signaling. Additionally, IL-21 promotes the anti-tumor activity of CD8⁺ T-cells and NK cells. IL-21 exerts its effect through binding to a specific type I cytokine receptor, IL-21R, which also contains the gamma chain (γc) found in other cytokine receptors including IL-2, IL-4, IL-7, IL-9 and IL-15. The IL-21/IL-21R interaction triggers a cascade of events which includes activation of the tyrosine kinases JAK1 and JAK3, followed by activation of the transcription factors STAT1 and STAT3.

Molecular Weight:

Approximately 15.4 kDa, a single non-glycosylated polypeptide chain containing 132 amino acids.

Purity:

>97% by SDS-PAGE and HPLC analyses.

Biological Activity:

Determined by its ability to proliferate activated B cells.

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:

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

Endotoxin:

Less than 1EU/mg of rHuIL-21 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 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.

Storage:

This lyophilized preparation is stable at 2-8°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°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

MADE IN CHINA

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