

GMP Recombinant Human IL21

Cat. No. IL21-108H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Human

Source E.coli

Description

Interleukin-21 (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 na?ve 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.

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

Bio-activity The ED50 determined by by a cell proliferation assay using human N1186 cells is less than 10 ng/mL, corresponding to a specific activity of >1.0 × 10⁵ IU/mg.

Molecular Mass Approximately 15.4 kDa, a single non-glycosylated polypeptide chain containing 133

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	amino acids.
AA Sequence	QGQDRHMIRM RQLIDIVDQL KNYVNDLVPE FLPAPEDVET NCEWSAFSCF QKAQLKSANT GNNERIINVS IKKLKRKPPS TNAGRRQKHR LTCPSCDSYE KKPPKEFLER FKSLQKMIH QHLSSRTHGS EDS
Endotoxin	Less than 1 EU/μg of IL-21 as determined by LAL method.
Purity	>97% by SDS-PAGE and HPLC analyses.
Usage	This material is offered by Creative Biomart for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.
Storage Buffer	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.
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="">

GENE INFORMATION

Gene Name	IL21 interleukin 21 [Homo sapiens]
Official Symbol	IL21

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Synonyms	IL21; interleukin 21; interleukin-21; IL 21; Za11; interleukin-21 isoform; IL-21;
Gene ID	59067
mRNA Refseq	NM_001207006
Protein Refseq	NP_001193935
MIM	605384
UniProt ID	Q9HBE4
Chromosome Location	4q26-q27
Pathway	Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Jak-STAT signaling pathway, organism-specific biosystem; Jak-STAT signaling pathway, conserved biosystem;
Function	cytokine activity; cytokine receptor binding; interleukin-2 receptor binding;

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