

## IL 21 Human

**Description:** Interleukin-21 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 133 amino acids and having a total molecular mass of 15,463 Dalton. The IL-21 is purified by proprietary chromatographic techniques.

**Synonyms:** Za11, IL-21.

**Source:** Escherichia Coli.

**Physical Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.

**Amino Acid Sequence:** The sequence of the first five N-terminal amino acids was determined and was found to be Gln-Gly-Gln-Asp-Arg.

**Purity:** Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

**Formulation:**

Lyophilized from a concentrated (1mg/ml) solution containing no additives.

**Stability:**

Lyophilized Interleukin-21 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL21 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Usage:**

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

**Solubility:**

It is recommended to reconstitute the lyophilized Interleukin -21 in sterile 18M-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

**Introduction:**

IL-21 is produced by CD4+ T cells in response to antigenic stimulation. Its action 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 naive 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.

**Biological Activity:**

The ED50=1-10ng/ml, determined by the dose-dependant proliferation of human peripheral blood mononuclear cells.

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Catalog #:CYPs-415

For research use only.