

Animal-Free Recombinant Human IL-21
Catalog # PBG10523**Specification**

Animal-Free Recombinant Human IL-21 - Product Information**Animal-Free Recombinant Human IL-21 - Additional Information****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 γ 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. Recombinant human IL-21 is a 15.4 kDa protein consisting of 132 amino acid residues.

BiologicalActivity

Assay #1: Determined by its ability to proliferate activated B cells.
Assay #2: Determined by its ability to induce human CD40L-activated naïve B cells to undergo Ig isotype switching to IgG, using an IL-21 concentration of 50 ng/ml. Maximal activity was achieved after approximately five cell divisions.
Avery, D.T. et. al. (2008) J. Immunol. 181, 1767-1779.

Authenticity

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

Endotoxin

Endotoxin level is <0.1 ng/ μ g of protein (<1EU/ μ g).

Protein Content

Verified by UV Spectroscopy and/or SDS-PAGE gel.

Storage

-20°C

Precautions

Animal-Free Recombinant Human IL-21 is for research use only and not for use in diagnostic or therapeutic procedures.

Animal-Free Recombinant Human IL-21 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Animal-Free Recombinant Human IL-21 - Images