

Product Datasheet

Recombinant Human Interleukin-21 (rHuIL-21) (orb1495040)

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 (γ c) 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.

Endotoxins

Less than 1EU/mg of rHuIL-21 as determined by LAL method.

Preservatives

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

Form/Appearance

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

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.

Note

For research use only

Application notes

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.

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Protein Sequence	MQDRHMIRM R QLIDIVDQLK NYVNDLVPEF LPAPEDVETN CEWSAFSCFQ KAQLKSAN TG NNERIINVSI KKLKRKPPST NAGRRQKHRL TCPSCDSYEK KPPKEFLERF KSLLQKMIH Q HLSSRTHGSE DS
Purity	> 97% by SDS-PAGE and HPLC analyses.
Source	Escherichia coli.
MW	Approximately 15.4 kDa, a single non-glycosylated polypeptide chain containing 132 amino acids.
Expiration Date	6 months from date of receipt.

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