

IL21

Recombinant Human Interleukin-21

Catalog No.	CRI172B	Quantity:	10 µg
	CRI172C		1.0 mg
	CRI172D		100 µg

Alternate Names: IL-21, CVID11, Za11

Description: Interleukin 21 (IL-21) is a member of the common-gamma chain family of cytokines with immunoregulatory activity. IL-21 plays a role in both the innate and adaptive immune responses by inducing the differentiation, proliferation and activity of multiple target cells including macrophages, natural killer (NK) cells, B cells and cytotoxic T cells. IL-21 is produced by CD4+ T cells in response to antigenic stimulation. Its action generally enhances antigen-specific responses of immune 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. The IL-21R activates the JAK/STAT signaling pathway and is expressed on T, B, and NK cells. Within the B cell lineage, IL-21 is a switch factor regulating IgG1 and IgG3 antibody production. IL-21 also cooperates with IL-4 for the production of multiple antibody classes in B cells.

Gene ID: 59067

UniProt ID: Q9HBE4

Source: *E. coli*

Molecular Weight: 15.4 kDa (132 aa) monomer

Formulation: Lyophilized from sterile-filtered 10 mM sodium phosphate, pH 7.5.

Purity: >97% by reducing and non-reducing SDS-PAGE

Endotoxin Level: ≤ 1 EU/µg of protein by USP <85>/ EP 2.6.14

Biological Activity: $ED_{50} \leq 5$ ng/ml, determined by dose-dependent proliferation of B9 cells

Specific Activity: $\geq 2.0 \times 10^5$ U/mg

Amino Acid Sequence: MQDRHMIRMRLQLIDIVDQLK NYVNDLVPEFLPAPEDVETN CEWSAFSCFQ
KAQLKSANTG NNERIINVSI KKLKRKPPST NAGRRQKHLR TCPSCDSYEK
KPPKEFLERF KLLQKMIHQ HLSSRTHGSE DS

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/ml. **DO NOT VORTEX.** Allow several minutes for complete reconstitution. Further dilutions should be made in appropriate buffered solutions.

Storage & Stability: Store as supplied at -20°C to -80°C for up to 1 year. Upon reconstitution, store at 2-8°C for up to 1 month or prepare working aliquots and store at -20°C to -80°C for up to 3 months. It is recommended that a carrier protein such as 0.1% HSA or BSA is added for long term storage. **Avoid repeated freeze-thaw cycles.**



Figure 1: 1 μ g run under (-) non-reducing and reducing (+) conditions in a 4-20% Tris-Glycine gel, stained with Coomassie Blue.

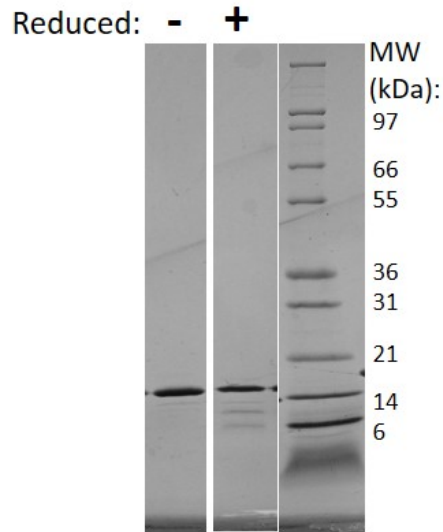
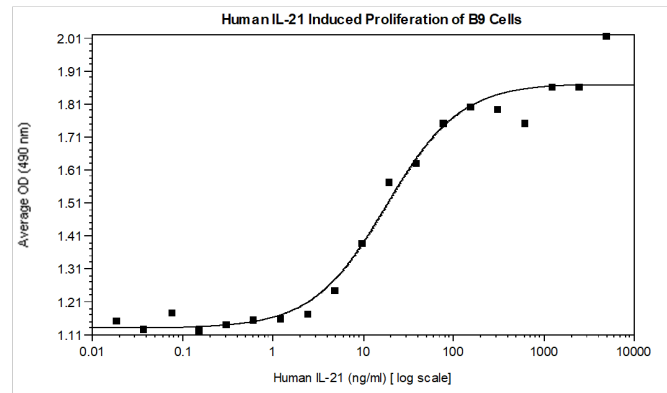


Figure: Serial dilutions of Human IL-21 were added to B9 cells. Cell proliferation was measured and the linear portion of the curve was used to calculate the ED50.



NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

