

## IL21

### Recombinant Human Interleukin-21

<b>Catalog No.</b>	CRI172A	<b>Quantity:</b>	2 µg
	CRI172B		10 µg
	CRI172C		1.0 mg

**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 ( $\gamma_c$ ) 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)

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

**Purity:** >95% by reducing and non-reducing SDS-PAGE

**Endotoxin Level:**  $\leq 1$  EU/µg of protein by kinetic LAL analysis

**Biological Activity:** ED<sub>50</sub> < 50 ng/ml, determined by dose-dependent proliferation of B9 cells.

**Specific Activity:**  $\square 2.0 \times 10^4$  U/mg

**Amino Acid Sequence:** MQDRHMIRMRLQLIDIVDQLK NYVNDLVPEFLPAPEDVETN CEWSAFSCFQ  
KAQLKSANTG NNERIINVSIIKKLKRKPPST NAGRRQKHRL TCPSCDSYEK  
KPPKEFLERFKSLLQKMIHQ 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:**

Lyophilized product is stable at room temperature for shipping purposes. Upon receipt, store at -20°C to -80°C for up to 1 year.

Upon reconstitution, the preparation is stable for up to 1 month at 2-8°C. For long term storage, freeze in working aliquots and store at -20 to -80°C. For maximal stability, dilute to working aliquots in a 0.1% BSA solution. **Avoid repeated freeze-thaw cycles.**

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

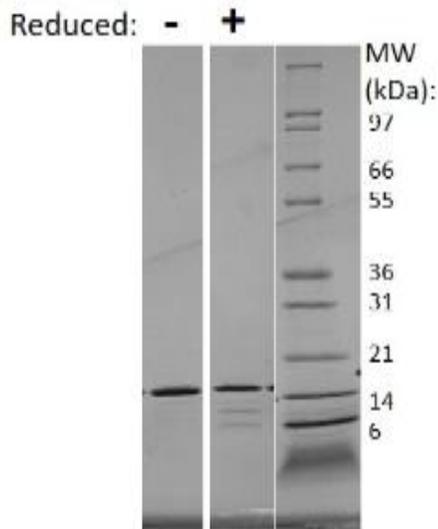
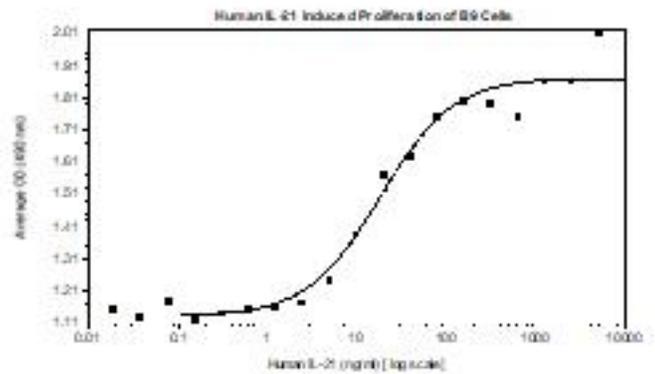


Figure: Serial dilutions of Human IL-21 were added to B9 cells. Cell proliferation was measured and the linear portion of the curve was used to calculate the ED50.



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

