

IL21

Recombinant Human Interleukin-21

Catalog No.	CRI172A CRI172B CRI172C	Quantity:	2 µg 10 µg 1.0 mg
Alternate Names:	IL-21, CVID11, Za11		
Description:	<p>Recombinant Human IL-21 is a single, non-glycosylated polypeptide chain containing 132 amino acids.</p> <p>Background: 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 (γc) 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.</p>		
Gene ID:	59067		
Protein Accession No:	Q9HBE4		
Source:	<i>Genetically modified E. coli</i>		
Molecular Weight:	15.4 kDa		
Formulation:	Lyophilized from a sterile-filtered solution with 10 mM sodium phosphate, pH 7.5.		
Purity:	>95% by SDS-PAGE		
Endotoxin Level:	≤1 EU/µg of protein by kinetic LAL analysis		
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ , as determined by cell proliferation assay using B9 cells, is < 50 ng/ml.		
Specific Activity:	> 5.0 × 10 ⁵ U/mg		
Amino Acid Sequence:	MQDRHMIRMR QLIDIVDQLK NYVNDLVPEF LPAPEDVETN CEWSAFSCFQ KAQLKSANTG NNERIINVSI KKLKRKPPST NAGRQKHRL TCPSCDSYEK KPPKEFLERF KSLQKMIHQ HSSRTHGSE 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 desiccated at -20°C for up to 1 year.

Upon reconstitution, the preparation is stable for up to one 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.

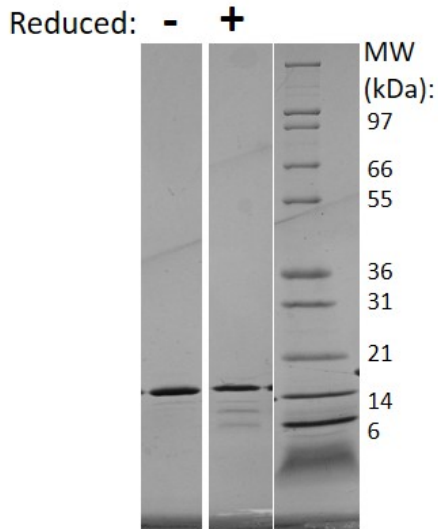
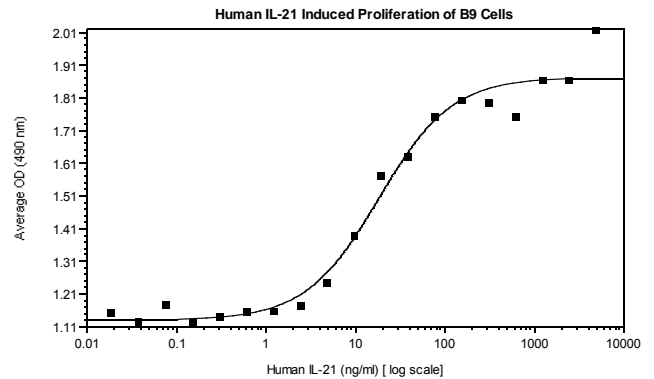


Figure: Serial dilutions of Human IL-21 were added to B9 cells. Cell proliferation was measured and the linear portion of the curve was used to calculate the ED50.



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