

## GFH90 Recombinant Human IL-21

### Description

Interleukin-21 (IL-21) is a member of the common- $\gamma$  chain family of cytokines that are involved in immunoregulation. IL-21 is normally expressed by activated CD4+ T cells and is aberrantly expressed in Hodgkin lymphoma cells. The IL-21 receptor (IL-21R) activates the JAK/STAT signaling pathway and is expressed on T, B, and Natural Killer (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. IL-21 has pleiotropic effects on the proliferation, differentiation, and effector functions of B, T, NK, and dendritic cells.

<b>Length</b>	132 aa
<b>Molecular Weight</b>	15.4 kDa
<b>Source</b>	E. coli
<b>Accession Number</b>	Q9HBE4
<b>Purity</b>	$\geq 95\%$ determined by reducing and non-reducing SDS-PAGE

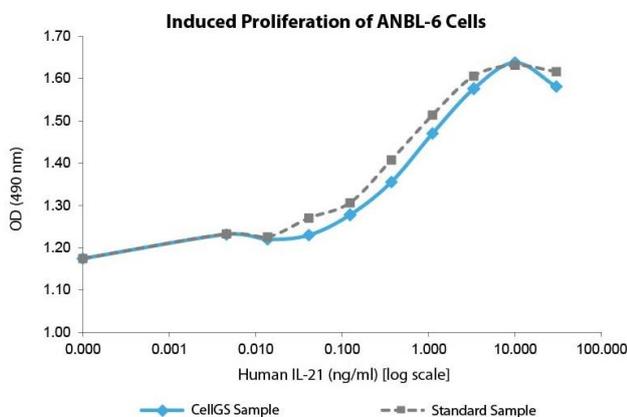
### Specifications

<b>Alternative Names</b>	Interleukin-21, interleukin 21, IL21, IL 21
<b>Biological Activity</b>	Human IL-21 is fully biologically active when compared to standard. The activity is determined by the ability to induce B9 cells proliferation and it is typically less than 50 ng/ml. This corresponds to an expected specific activity of $2.0 \times 10^4$ units/mg.
<b>Endotoxin Level</b>	$\leq 1.00$ EU/ $\mu$ g as measured by kinetic LAL
<b>Formulation</b>	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)
<b>AA Sequence</b>	MQDRHMIRMRLQLIDIVDQLK NYVNDLVPEFLPAPEDVETN CEWSAFSCFQ KAQLKSANTG NNERIINVSI KLLKRKPPST NAGRRQKHRL TCPSCDSYEK KPPKEFLERF KSLLOKMIHQ HLSSRTHGSE DS

### Preparation and Storage

<b>Reconstitution</b>	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile 10 mM HCl at 0.1 mg/ml, which can be further diluted into other aqueous solutions.
<b>Stability and Storage</b>	12 months from date of receipt when stored at $-20^{\circ}\text{C}$ to $-80^{\circ}\text{C}$ as supplied. 1 month when stored at $4^{\circ}\text{C}$ after reconstituting as directed. 3 months when stored at $-20^{\circ}\text{C}$ to $-80^{\circ}\text{C}$ after reconstituting as directed.

### Data



Non-reducing (-) and reducing (+) conditions in a 4 - 20% Tris-Glycine gel stained with Coomassie Blue. 1  $\mu$ g of protein was loaded in each lane.  
Human IL-21 has a predicted Mw of 15.4 kDa.