

**Product:** **Recombinant Human Interleukin-21 / IL-21**  
**Cat #: 300-148P**  
Powder

Description	Interleukin-21 (IL-21) is a member of the common gamma-chain family of cytokines (includes IL-2, IL-4, IL-7, IL-9, IL-13, and IL-15) and is expressed by activated CD4+ T cells. IL-21 has a private receptor known as IL-21R, which is expressed on T, B, and NK cells. Within the B cell lineage, IL-21 regulates IgG1 production and cooperates with IL-4 for the production of multiple Ab classes in vivo. Initial studies have demonstrated that IL-21 has pleiotropic effects on the proliferation, differentiation, and effector functions of B, T, natural killer, and dendritic cells.
MW	Non-glycosylated protein, containing 133 amino acids, with a total molecular weight of 15.5 kDa.
Physical Appearance	Sterile filtered white lyophilized (freeze-dried) powder.
Source	<i>E. coli</i>
Formulation	Recombinant human IL-21 is lyophilized from 20 mM Na <sub>2</sub> PO <sub>4</sub> , pH 7.5.
Reconstitution	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 water at a concentration of 0.1 mg/mL, which can be further diluted into other aqueous solutions.
Stability	Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.
Biological Activity	The activity is determined by the dose-dependent stimulation of Mino cells and is typically less than 0.1-0.6 ng/mL.
Endotoxin Level	Measured by kinetic LAL analysis and is typically ≤ 1 EU/μg protein.
AA Sequence	MQDRHMIRMRLQLIDIVDQLK NYVNDLVPEF LPAPEDVETN CEWSAFSCFQ KAQLKSANTG NNERIINVSI KKLKRKPPST NAGRRQKHRL TCPSCDSYEK KPPKEFLERF KSLQKMIHQ HLSSRTHGSE DS
	Purity greater than 95% determined by HPLC, Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm.
	Protein content determined by HPLC, Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm.

**THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!**