



# Product Data Sheet

Recombinant Human IL-21  
Catalog Number: 100-90

## Product Description

**Alternate Names:** None

**Accession Number:** Q9HBE4

**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.

**Source:** Genetically modified *E.coli*.

**Predicted MW:** Monomer, 15.4 kDa (with 132 amino acids)

**AA Sequence:** MQDRHMIRMRLQLIDIVDQLK NYVNDLVPEFLPAPEDVETN CEWSAFSCFQ KAQLKSANTG NNERIINVSI KKLKRKPPST NAGRRQKHRL TCPSCDSYEK KPPKEFLERF KSLQKMIHQ HLSSRTHGSE DS

**Formulation:** Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 10 mM sodium phosphate, pH 7.5

## Product Specifications\*

\*Lot-specific values for the following specifications are supplied with each production lot on its corresponding COA.

Specification	Method of Determination	Acceptance Criteria
Purity	Reducing and Non-Reducing SDS-PAGE	≥ 95%
Endotoxin	Kinetic LAL (50% confidence)	≤ 1 EUs/μg
Biological Activity	ANBL-6 cell proliferation OR B9 cell proliferation	ED50 ≤ 2 ng/mL (≥ 5.0 x 10 <sup>5</sup> units/mg) (typical ED50 is < 1 ng/mL) OR ED50 ≤ 50 ng/mL (≥ 2.0 x 10 <sup>4</sup> units/mg)

In addition to the acceptance criteria, this product has been tested with the following assay: (1) Mino cell proliferation

## Product Preparation and Storage

**Country of Origin:** USA

**Shipping:** Room temperature

**Storage Prior to Reconstitution:** -20°C

**Product Reconstitution:** Sterile water at 0.1 mg/mL

**Instructions:** Centrifuge vial before opening. Suspend the product by gently pipetting the above recommended solution down the sides of the vial. DO NOT VORTEX. Allow several minutes for complete reconstitution. For prolonged storage, dilute to working aliquots in a 0.1% BSA solution, store at -80°C and avoid repeat freeze thaws.

### Expiration Date:

12 months from date of receipt when stored at -20°C to -80°C as supplied.

1 month when stored at 4°C after reconstituting as directed.

3 months when stored at -20°C to -80°C after reconstituting as directed.

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