

Certificate of Analysis

Recombinant Animal-Free Human IL-21
Catalog Number: 100-90AF
Lot Number: 0219-100-90AF

Product Description

Alternate Names: None **Accession/Uniprot 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*. **This product is produced with no animal or human origin raw products. All processing and handling employs animal free equipment and animal free protocols.**

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

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

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

Product Specifications

Specification	Method of Determination	Acceptance Criteria	Result
Purity	Reducing and Non-reducing SDS-PAGE	≥95%	>95%
Endotoxin	Kinetic LAL (50% confidence)	≤ 1 EUs/ug	0.058 EUs/ug
Biological Activity	B9 cell proliferation	ED50 ≤ 50 ng/mL (≥ 2.0 x 10 ⁴ units/mg)	ED50 = 8.97 ng/mL (1.1 x 10 ⁵ units/mg)

Product Preparation and Storage

Country of Origin: USA **Shipping:** Room temperature **Storage Prior to Reconstitution:** -20°C

Reconstitution: Sterile water at 0.1 mg/mL **Date of Recon.:** _____ **Initials:** _____

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: _____ **Date Received:** _____

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.

Jazmine George (2019-04-18)
QA Reviewer (YYYY-MM-DD)

Martin P. Keough, PhD (2019-04-18)
QC Reviewer (YYYY-MM-DD)

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