

Growth Factor Data Sheet

GoldBio growth factors are manufactured for **RESEARCH USE ONLY** and cannot be sold for human consumption!

Human interleukin-21 (IL21) is encoded by the IL21 gene located on chromosome 4. IL21 is a pleiotropic cytokine produced by CD4+ T-cells in response to antigenic stimulation, and can regulate members of the immune system, like cytotoxic-T-cells or natural killer cells. Additionally, IL21 can induce division and proliferation in its target cells. IL21 elicits its effect through binding to the IL21R (IL21 receptor), which also contains the gamma chain found in other cytokine receptors such as IL2, IL4, IL7, IL9 and IL15. The IL21/IL21R interaction triggers a cascade of events, which includes the activation of the tyrosine kinases JAK1 and JAK3, which is then followed by the activation of the transcription factors STAT1 and STAT3. IL21 also seems to be an important player in clinical illnesses, including cancer immunotherapy, viral infections and allergies.

Catalog Number	1110-21
Product Name	IL21, Human Recombinant Human Interleukin-21 IL21 Interleukin 21
Source	<i>Escherichia coli</i>
MW	~15.4 kDa (133 amino acids)
Sequence	QGQDRHMIRM RQLIDIVDQL KNYVNDLVE FLPAPEDVET NCEWSAFSCF QKAQLKSANT GNNERIINVSIKKLKRKPPS TNAGRRQKHR LTCPSCDSYE KKPPKEFLER FKSLQKMIH QHLSSRTHGS EDS
Accession Number	Q9HBE4
Purity	>97% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using human N1186 T cells is less than 20 ng/ml, corresponding to a specific activity of >5.0 × 10 ⁴ IU/mg.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.