

Recombinant Rat IL21 protein

Cat. No. IL21-581R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat IL21 protein was expressed in Escherichia coli.
Species	Rat
Source	E.coli
ProteinLength	129
Description	Rat IL-21 is produced by CD4+ T cells in response to antigenic stimulation and can regulating immune system cells, for instance cytotoxin T cells and natural killer cells. The biological effects of IL-21 include induction of differentiation of T-cells-stimulated B-cells into plasma cells and memory B-cells, stimulation with IL-4 of IgG production, and induction of apoptotic effects in naïve B-cells and stimulated B-cells in the absence of T-cell signaling. Additionally, it promotes the anti-tumor activity of CD8+ T-cells and NK cells. IL-21 elicits its effect through binding to IL-21R, which also contains the gamma chain found in other cytokine receptors such as IL-2, IL-4, IL-7, IL-9 and IL-15. IL-21 shows having much relation with clinical illnesses, including cancer immunotherapy, viral infections and allergies. Mature rat IL-21 shares 88% a.a. sequence identity with mouse IL-21.
Form	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using human N1186 cells is less than 50 ng/ml, corresponding to a specific activity of > 2.0 ×

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	10 ⁴ IU/mg.
Molecular Mass	Approximately 15.2 kDa, a single non-glycosylated polypeptide chain containing 129 amino acids.
AA Sequence	HKSSPQRPDHLLIRLRLMDIVEQLKIYENDLDPELLTAPQDVKGQCEHEAFACFQK AKLKPSNTGNNKTFINDLLAQLRRRLPAKRTGNKQRHMAKCPSCDLYEKKTPKEFLE RLKWLLQKMIHQHLS
Endotoxin	Less than 1 EU/μg of rRtIL-21 as determined by LAL method.
Purity	>96% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	IL21
Official Symbol	IL21
Synonyms	Za11

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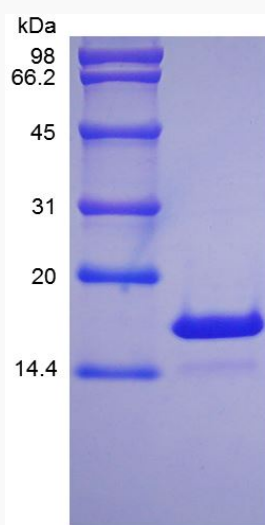
Gene ID 365769

mRNA Refseq NM_001108943

Protein Refseq NP_001102413

UniProt ID A3QPB9

SDS-PAGE of Il21-
581R



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