

Recombinant Rat Interleukin-21

#R00311

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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.

AA Sequence

HKSSPQRPDHLLIRLRHLM DIVEQLKIYENDLDPELLT
APQDVKGQCEHEAFACFQKAKLKPSNTGNNKTFIND
LLAQLRRRLPAKRTGNKQRHMAKCPSCDLYEKKTPK
EFLERLKWLLQKMIHQHLS

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 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	Za11
Accession	A3QPB9
GeneID	365769
Species	Rat
Source	Escherichia coli.
Molecular Weight	Approximately 15.2 kDa, a single non-glycosylated polypeptide chain containing 129 amino acids.
Purity	> 96 % 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 cells is less than 50 ng/ml, corresponding to a specific activity of > 2.0 × 10 ⁴

IU/mg.

Physical Appearance Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Endotoxin Less than 1 EU/µg of rRtIL-21 as determined by LAL method.