

Recombinant Human Interleukin-21

#R00062

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

Human IL-21 is encoded by IL-21 gene located on Chr. 4. It is a pleiotropic cytokine 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. Additionally, it can induce target cells division or proliferation. 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/IL-21R interaction triggers a cascade of events which includes activation of the tyrosine kinases JAK1 and JAK3, followed by activation of the transcription factors STAT1 and STAT3. IL-21 shows having much relation with clinical illnesses, including cancer immunotherapy, viral infections and allergies.

AA Sequence

QGQDRHMIRMRLIDIVDQLKNYVNDLVPEFLPAPED

VETNCEWSAFSCFQKAQLKSANTGNNERIINVSIKKL
KRKPPSTNAGRRQKHRLTCPCDSYEKKPPKEFLER
FKSLLQKMIHQHLSSRTHGSEDS

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	Q9HBE4
GeneID	59067
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 15.4 kDa, a single non-glycosylated polypeptide chain containing 133 amino acids.
Purity	> 97 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. Measured by its ability to enhance IFN-gamma secretion in NK-92 human natural killer lymphoma cells. The ED ₅₀ for this effect is ≤ 2 ng/mL. The

	specific activity of recombinant human IL-21 > 5.0 × 10 ⁵ U/mg.
Physical	Sterile Filtered White lyophilized
Appearance	(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 rHuIL-21 as determined by LAL method.