# **Recombinant Rat IL-21 Protein**

Catalog No.: RP01756 Recombinant



## **Sequence Information**

**Species Gene ID Swiss Prot** Rat 365769 A3QPB9

**Tags** C-6His

**Synonyms** 

Za11; IL-21; CVID11

# **Product Information**

**Source** Purification HEK293 cells ≥ 90% as

≥ 90% as determined by SDS-

PAGE.

Calculated MW Observed MW

16.03 kDa 20-30 kDa

#### **Endotoxin**

< 0.1 EU/ $\mu$ g of the protein by LAL method.

### **Formulation**

Lyophilized from a  $0.22 \mu m$  filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

### Contact

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# **Background**

IL21 belongs to the IL-15/IL-21 family. It is a cytokine with immunoregulatory activity. Cytokines are proteinaceous signaling compounds that are major mediators of the immune response. They control many different cellular functions including proliferation, differentiation, and cell survival/apoptosis but are also involved in several pathophysiological processes including viral infections and autoimmune diseases. Cytokines are synthesized under various stimuli by a variety of cells of both the innate (monocytes, macrophages, dendritic cells) and adaptive (T- and B-cells) immune systems. IL21 is expressed in activated CD4-positive T-cells but not in CD8-positive T-cells, B-cells, or monocytes. It may promote the transition between innate and adaptive immunity. IL-21 has been tried as a therapy for alleviating allergic responses. It can significantly decrease pro-inflammatory cytokines produced by T cells in addition to decreasing IgE levels in a mouse model for rhinitis (nasal passage inflammation).

### **Basic Information**

### Description

Recombinant Rat IL-21 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (His18-Ser146) of rat IL-21 (Accession  $\#NP_01102413.1$ ) fused with a  $6\times His$  tag at the C-terminus.

#### **Bio-Activity**

Measured by its ability to induce Interferon gamma secretion by human natural killer lymphoma NK-92 cells. The ED $_{50}$  for this effect is 0.45-1.8 ng/mL, corresponding to a specific activity of  $5.6\times10^5\sim2.2\times10^6$  units/mg.

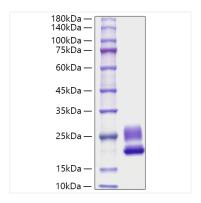
### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

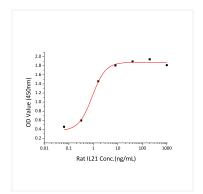
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

# **Validation Data**



Recombinant Rat IL-21 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



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