

## Recombinant Rat IL-21R Protein (His Tag)

Catalog No. PKSR030333

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

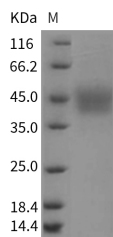
### Description

<b>Synonyms</b>	IL21R
<b>Species</b>	Rat
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met1-Pro236
<b>Accession</b>	Q5EBB1
<b>Calculated Molecular Weight</b>	26.5 kDa
<b>Observed molecular weight</b>	43-48 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Immobilized rat IL21R-His at 10 µg/ml (100 µl/well) can bind biotinylated rat IL21-His, The EC50 of biotinylated rat IL21-His is 4. 6-10.9 ng/ml.

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

Interleukin-21 receptor, also known as IL-21 receptor, IL-21R, Novel interleukin receptor, IL21R and NILR, is a single-

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pass type I membrane protein which belongs to the type I cytokine receptor family and Type 4 subfamily. Interleukin-21 (IL-21) belongs to a family of cytokines that bind to a composite receptor consisting of a private receptor (IL-21R) and the common cytokine receptor gamma chain (  $\gamma$ (C) ). The IL-21R is discovered as a novel member of the class-I-cytokine-receptor family and is selectively expressed in lymphoid tissues. IL-21R shows strong sequence homologies to the interleukin-4 receptor alpha chain gene (IL-4RA). The WSXWS motif of IL-21R appears to be necessary for proper protein folding and thereby efficient intracellular transport and cell-surface receptor binding. The box 1 motif of IL-21R is required for JAK interaction and / or activation. The IL-21R is widely distributed on lympho-haematopoietic cells and IL21 impacts a number of cell types, including CD8+ memory T cells, NK cells and subsets of CD4 memory T cells. Increased IL21 production is characteristic of certain autoimmune diseases and is likely to contribute to autoantibody production as well as pathological features of autoimmune disease. The critical role of IL21 in promoting humoral immune responses makes it an important focus of potential therapeutic interventions in conditions characterised by overproduction of pathogenic autoantibodies.