

# Recombinant Mouse IL-21 protein(His Tag)

Catalog Number: PKSM041469

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

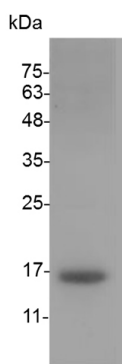
## Description

<b>Species</b>	Mouse
<b>Mol_Mass</b>	15.9 kDa
<b>Accession</b>	Q9ES17
<b>Bio-activity</b>	Measure by its ability to enhance IFN gamma secretion in NK-92 cells. The ED <sub>50</sub> for this effect is <6 ng/mL. The specific activity of recombinant mouse IL-21 is > 1.6 x 10 <sup>5</sup> IU/mg.

## Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 0.1 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% Tween 80 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



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## Background

IL-21 is a potent cytokine regulating many cell types of the immune system. IL-21 is produced by activated T follicular helper cells (Tfh), Th17 cells, and NKT cells. Tfh-derived IL-21 plays an important role in the development of humoral immunity through its autocrine effects on the Tfh cell and paracrine effects on immunoglobulin affinity maturation, plasma cell differentiation, and B cell memory responses. IL-21 protein regulates several aspects of T cell function. It co-stimulates the activation, proliferation, and survival of CD8<sup>+</sup> T cells and NKT cells and promotes Th17 cell polarization. IL-21 blocks the generation of regulatory T cells and their suppressive effects on CD4<sup>+</sup> T cells. In addition to its role in T cell biology, IL-21 also plays a critical role in B cell activation, proliferation, differentiation, and apoptosis. It is also required for the migration of dendritic cells to draining lymph nodes. And IL-21 suppresses cutaneous hypersensitivity reactions by limiting allergen-specific IgE production and mast cell degranulation. In the autoimmune disease Systemic lupus erythematosus (SLE), a link between IL-21 and SLE disease susceptibility and progression was recently reported.

## For Research Use Only