

## LeadGMP® Human IL-21 Protein, His Tag, E. coli

Catalog Number	LDG011PHE-GMP
Package	100 µg / 1 mg / Customized package

For full product information, images and publications, please visit [our website](#).



### Specifications

#### Species of Origin

Human

#### Affinity Tag

His Tag (C-term)

#### Purity

>97% as determined by SDS-PAGE analysis.

#### Activity

Measure by its ability to enhance IFN gamma secretion in NK-92 cells. The ED<sub>50</sub> for this effect is <10 ng/mL.

#### Mycoplasma

Not detected

#### Expression System

Escherichia coli

#### Storage Buffer

Lyophilized from a 0.2 µm filtered solution of PBS, pH 8.0.

#### Molecular Weight

The protein has a calculated MW of 16.2 kDa. The protein migrates as 15-19 kDa under reducing condition (SDS-PAGE analysis).

#### Endotoxin Level

<0.05 EU per 1 µg of the protein by the LAL method.

#### Form

Lyophilized

### Background

#### Tainan Headquarter

+886-6-2536677

bd@leadgene.com.tw

#### Innovation & Research Center

+886-2-27065528

#### CLD Center

+886-6-2536677

### Background

Interleukin-21 (IL-21) belongs to the IL-15/IL-21 family, which exerts pleiotropic immune regulations. IL-21 produced primarily by natural killer T (NKT) cells, T follicular helper (TFH) cells and TH17 cells. As a pleiotropic cytokine, IL-21 has been shown to regulate both innate and humoral immunity. It has potent inhibitory activity towards the activation and maturation of granulocyte-macrophage colony-stimulating factor (GM-CSF)-induced dendritic cells (DCs). In B cells, IL-21 has a major role in the development of immunoglobulin responses. In T cells, it is required to facilitate the functional differentiation of several CD4+ T cell subsets. In addition, the ability of IL-21 to enhance the cytotoxic activity of both CD8+ T cells and NK cells makes it as a potential antitumor agent.

### Uniprot ID

Q9HBE4

### Synonyms

Interleukin-21, Za11

### Sequence Note

Gln32-Ser162

## Instruction

### Reconstitution

It is recommended to reconstitute the lyophilized protein in sterile H<sub>2</sub>O to a concentration not less than 0.5 mg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.

### Shipping

The product is shipped with polar packs. Upon receipt, store it immediately at -20°C or lower for long term storage.

### Stability & Storage

This product is stable after storage at:

- -20°C for 12 months in lyophilized state from date of receipt.
- -20°C or -80°C for 1 month under sterile conditions after reconstitution.

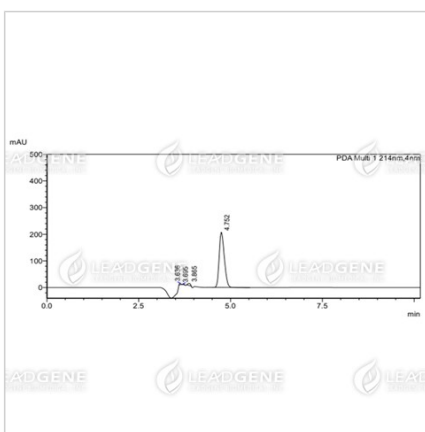
Avoid repeated freeze/thaw cycles.

### Manufacturing Specifications

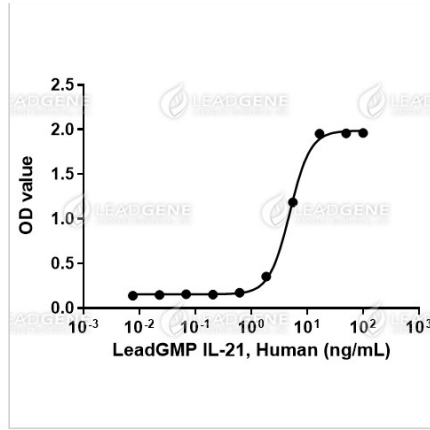
LeadGMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP certified facility. The processes include:

- Animal-free reagent and laboratory
- Manufactured and tested under GMP guideline
- Testing and traceability of raw material
- Records of the maintenance and equipment calibration
- Personnel training records
- Batch-to-batch consistency
- Documentation of QA control and process changes
- Manufactured and tested under an ISO 13485:2016 certified quality management system
- Stability monitor of product shelf-life

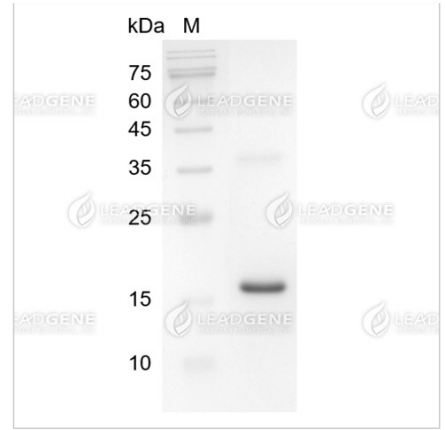
## Image



The purity of LeadGMP® Human IL-21 Protein is greater than 95% as determined by RP-HPLC.



LeadGMP® Human IL-21 Protein, His Tag, E. coli (LDG011PHE-GMP) enhances IFN gamma secretion in NK-92 cells, with the ED50 <10 ng/mL



SDS-PAGE analysis of LeadGMP® IL-21, Human

**Disclaimer :** For Research Use or Further Manufacturing Only.