

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 ED₅₀ for this effect is <10 ng/mL.

Mycoplasma

Not detected

Expression system

Escherichia coli

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

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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 H₂O 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.

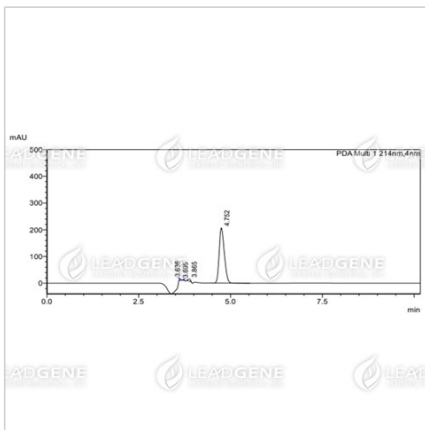
Avoid repeated freeze/thaw cycles.

Manufacturing specifications

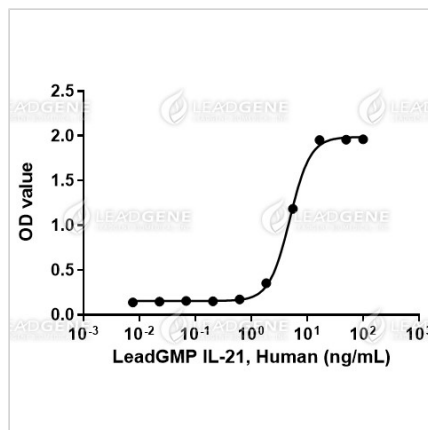
LeadGMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP certified facility. The processes include:

- 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

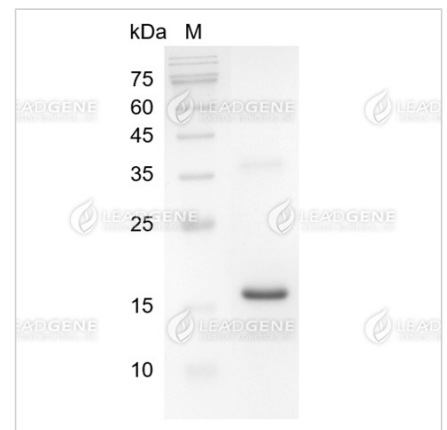
Image



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.

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