

## LeadGMP® Human IL-2 Protein, His Tag, E. coli

**Catalog Number** LDG003PHE-GMP

**Package** 100 µg / 1 mg / Customized package

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



### Specifications

#### Species of Origin

Human

#### Expression System

Escherichia coli

#### Affinity Tag

His Tag (C-term)

#### Storage Buffer

Lyophilized from a 0.2 µm filtered solution of NaPi buffer, 0.018% SDS, pH 7.5.

#### Purity

>97% as determined by SDS-PAGE analysis.

#### Molecular weight

The protein has a calculated MW of 16.4 kDa. The protein migrates as 13 kDa under reducing condition (SDS-PAGE analysis).

#### Activity

Measure by its ability to induce proliferation in CTLL-2 cells. The ED<sub>50</sub> for this effect is <3 ng/mL. The specific activity of recombinant human IL-2 is >5 x 10<sup>6</sup> IU/mg, which is calibrated against the human IL-2 WHO International Standard (NIBSC code: 86/500).

#### Endotoxin Level

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

#### Mycoplasma

Not detected

#### Form

Lyophilized

### Background

#### Tainan Headquarters

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#### Innovation & Research Center

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#### CLD Center

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### Background

Interleukin-2 (IL-2) is a 15.5 kDa four bundle, immuno-modulatory cytokine which is expressed predominately by antigen-simulated CD4+ T cells, CD8+ T cells, natural killer (NK) cells, and dendritic cells (DC). IL-2 plays a fundamental role in promoting NK cell proliferation, cytotoxicity, and B cells differentiation. IL-2 modulate T cell differentiation programs, promoting naïve CD4+ T cell differentiation into T helper-1 (Th1) and T helper-2 (Th2) cells.

### Uniprot ID

P60568

### Synonyms

Interleukin-2, T-cell growth factor , TCGF

### Sequence Note

Ala21-Thr153

## 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.

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### 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.

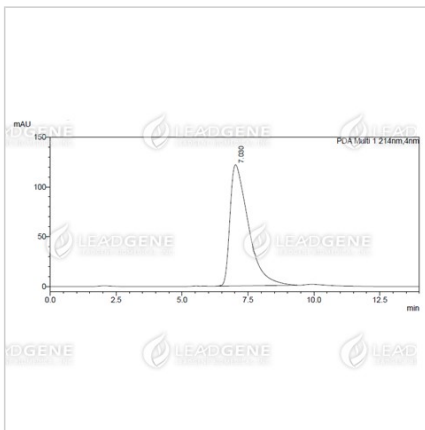
Avoid repeated freeze/thaw cycles.

### Manufacturing Specifications

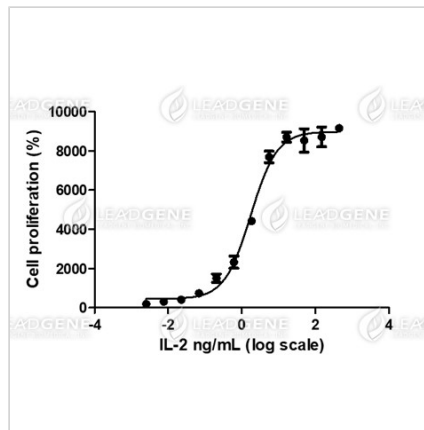
LeadGMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP certified facility. The processes include:

- 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

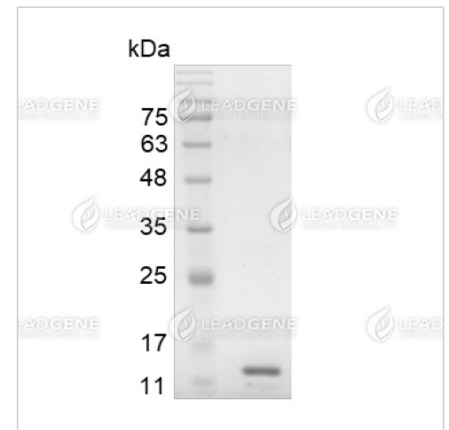
## Image



The purity of LeadGMP® Human IL-2 Protein is greater than 95% as determined by SEC-HPLC.





LeadGMP® Human IL-2 Protein, His Tag, E. coli (LDG003PHE-GMP) induces CTLL-2 cell proliferation, with the ED50 < 3.0 ng/mL.



SDS-PAGE analysis of LeadGMP® IL-2, Human

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

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