

## LeadGMP® Human IL-1 Beta Protein, His Tag, E. coli

**Catalog Number** LDG002PHE-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 induce IL-8 secretion in HT29 cells. The ED<sub>50</sub> for this effect is <2.0 ng/mL. The specific activity of recombinant human IL-1 beta is approximately > 5 x 10<sup>7</sup> IU/mg, which is calibrated against the human IL-1 beta WHO International Standard (NIBSC code: 86/680).

#### 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 18.5 kDa. The protein migrates as 17 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-1 beta (IL-1 $\beta$ ) is a major cytokine expressed in macrophage, NK cells, monocytes, and neutrophils. It also plays fundamental role in inflammatory response, including monocyte activation, which is essential for the host defense and pathogen resistance. Pro-IL-1 $\beta$  is cleaved by cytosolic caspase 1 to form mature IL-1 $\beta$ .

### Uniprot ID

P01584

### Synonyms

Interleukin-1 beta, Catabolin

### Sequence Note

Ala117-Ser269

## 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.

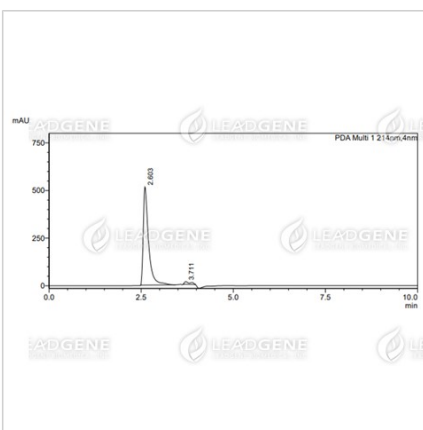
Avoid repeated freeze/thaw cycles.

### Manufacturing specifications

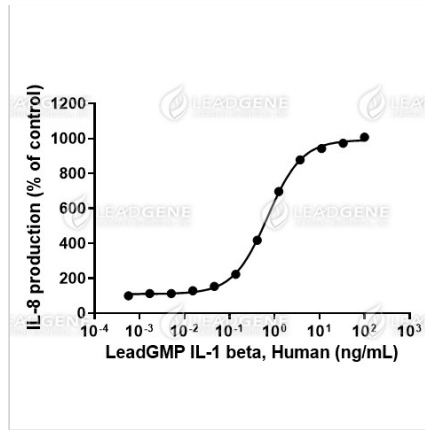
LeadGMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP certified facility. The processes include:

- 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

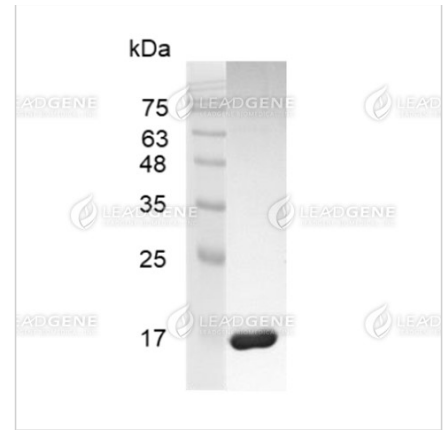
## Image



The purity of LeadGMP® Human IL-1 beta Protein is greater than 95% as determined by RP-HPLC.



LeadGMP® Human IL-1 beta Protein, His Tag, E. coli (LDG002PHE-GMP) induces IL-8 secretion in HT29 cells, with the ED50 < 2.0 ng/mL.



SDS-PAGE analysis of LeadGMP® IL-1 beta, Human

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