

## LeadGMP® Human TNF Alpha Protein, His Tag, E. coli

**Catalog Number** LDG014PHE-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 cytotoxicity in L929 cells in the presence of actinomycin D. The ED<sub>50</sub> for this effect is < 0.1 ng/mL. The specific activity of recombinant human TNF alpha is approximately  $\geq 1 \times 10^7$  IU/mg, which is calibrated against the human TNF Alpha WHO International Standard (NIBSC code: 12/154).

#### Mycoplasma

Not detected

#### Expression system

Escherichia coli

#### Buffer

Lyophilized from a 0.2 µm filtered solution of 500 mM NaCl PBS, pH 7.4.

#### Molecular weight

The protein has a calculated MW of 18.3 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

#### Tainan Headquarter

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#### Innovation & Research Center

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#### CLD Center

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### Background

Tumor necrosis factor alpha (TNF alpha) stimulates the acute phase of the immune response. In response to a pathogen, TNF alpha is one of the first to be released and can apply its effects in many organs. TNF alpha stimulates the release of corticotropic releasing hormone, suppresses appetite, and induces fever, in the hypothalamus. TNF increase vasodilation and loss of vascular permeability, it helps recruit lymphocyte, neutrophil, and monocyte to the inflammation site by regulating chemokine release.

### Uniprot ID

P01375

### Synonyms

Tumor necrosis factor, Cachectin, Tumor necrosis factor ligand superfamily member 2 , TNF-a

### Sequence Note

Val77-Leu233

## 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.

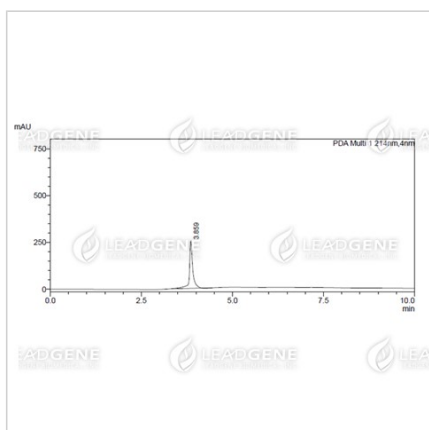
Avoid repeated freeze/thaw cycles.

### Manufacturing specifications

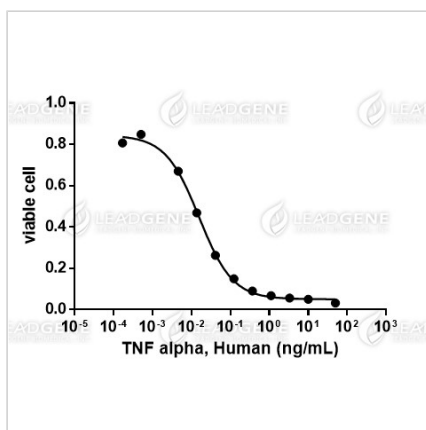
LeadGMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP certified facility. The processes include:

- 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

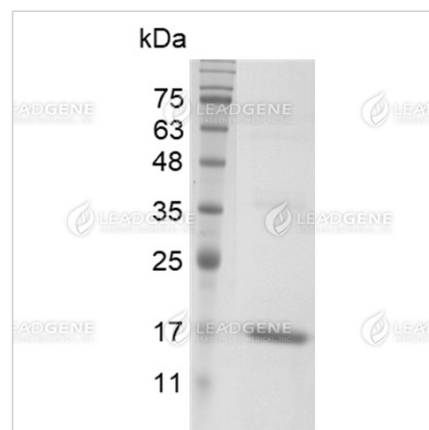
## Image



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



LeadGMP® Human TNF Alpha Protein, His Tag, E. coli (LDG014PHE-GMP) induce cytotoxicity in L929 cells with the ED<sub>50</sub> < 0.1 ng/mL.



SDS-PAGE analysis of LeadGMP® TNF alpha, Human

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

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