

## Human GM-CSF, His Tag, E. coli

**Catalog Number** LDG044PHE

**Package** 5 µg / 20 µg / 100 µg / Customized package

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



### Specifications

#### Species of Origin

Human

#### Affinity Tag

His Tag (N-term)

#### Purity

>98% as determined by SDS-PAGE analysis.

#### Activity

Measure by its ability to induce TF-1 cells proliferation. The ED<sub>50</sub> for this effect is <80 pg/mL. The specific activity of recombinant human GM-CSF is approximately >1 x 10<sup>7</sup> IU/mg.

#### Form

Lyophilized

#### 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 15.4 kDa. The protein migrates as 15 kDa under reducing condition (SDS-PAGE analysis).

#### Endotoxin level

<0.1 EU per 1 µg of the protein by the LAL method.

### Background

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### Background

Granulocyte-macrophage colony-stimulating factor (GM-CSF) was first identified as a Growth Factors due to its ability to induce proliferation and differentiation of bone marrow progenitors into granulocytes and macrophages. GM-CSF is produced by multiple cell types including activated T cells, B cells, macrophages, endothelial cells and fibroblasts upon receiving immune stimuli. GM-CSF stimulates stem cells to produce granulocytes and monocytes functions as a cytokine.

### Uniprot ID

#P04141

### Synonyms

Granulocyte-macrophage colony-stimulating factor, Colony-stimulating factor , CSF, Molgramostin, Sargramostim

### Sequence Note

Ala18-Glu144

## Instruction

### Reconstitution

It is recommended to reconstitute the lyophilized protein in sterile H<sub>2</sub>O to a concentration not less than 200 µg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.

### 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.

### Shipping

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

## Image

### Tainan Headquarter

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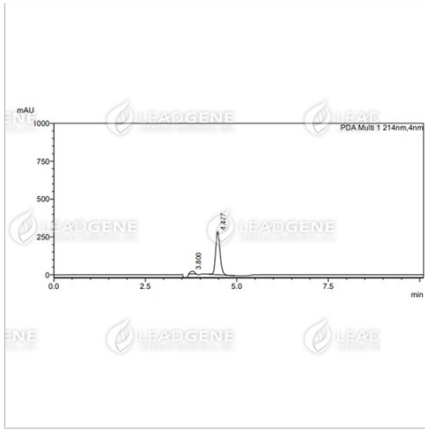
bd@leadgene.com.tw

### Innovation & Research Center

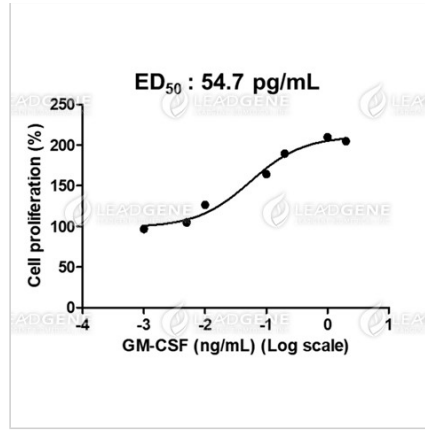
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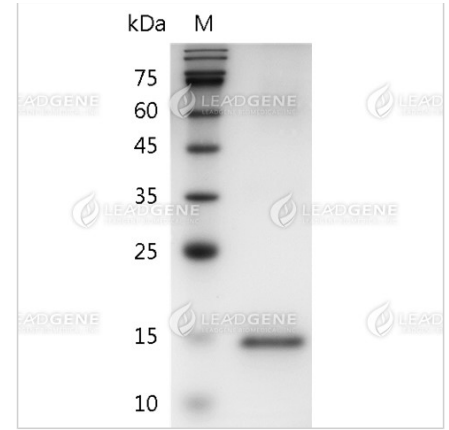
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The purity of recombinant human GM-CSF is greater than 95% as determined by RP-HPLC.



Human GM-CSF, His Tag, E. coli (LDG044PHE) induced TF-1 cell proliferation, with the ED<sub>50</sub> at 54.7 pg/mL.



SDS-PAGE analysis of recombinant human GM-CSF.

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