

RP01416

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# Recombinant Mouse Leukemia inhibitory factor/LIF Protein

Catalog No.: RP01416 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
HEK293 cells	16878	P09056

### Tags

C-His&Avi

### Synonyms

LIF;CDF;DIA;HILDA;MLPLI;LIF

## Product Information

Source	Purification
HEK293 cells	> 90% by SDS-PAGE.

### Endotoxin

< 0.1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Background

Leukemia inhibitory factor (LIF) is a pleiotropic glycoprotein belonging to the IL-6 family of cytokines. It is involved in growth promotion and cell differentiation of different types of target cells, influence bone metabolism, cachexia, neural development, embryogenesis, and inflammation. LIF has potent proinflammatory properties, being the inducer of the acute phase protein synthesis and affecting cell recruitment into the area of damage or inflammation. LIF is also one of the cytokines that are capable to regulate the differentiation of embryonic stem cells, hematopoietic, and neuronal cells. LIF binds to the specific LIF receptor (LIFR-α) which forms a heterodimer with a specific subunit common to all members of that family of receptors, the GP130 signal-transducing subunit. This leads to the activation of the JAK/STAT and MAPK cascades. Due to its polyfunctional activities, LIF is involved in the pathogenic events and development of many diseases of various origins.

## Basic Information

### Description

Recombinant Mouse Leukemia inhibitory factor/LIF Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ser24-Phe203) of mouse LIF (Accession #NP\_032527.1) fused with a 6×His , Avi tag at the C-terminus.

### Bio-Activity

Measured in a cell proliferation assay using TF-1 Human erythroleukemic cells. The ED<sub>50</sub> for this effect is 35.675-142.7 ng/mL, corresponding to a specific activity of 7.00×10<sup>4</sup>~2.80×10<sup>4</sup> units/mg.

### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

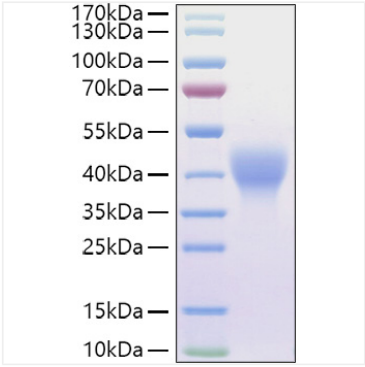
## Contact



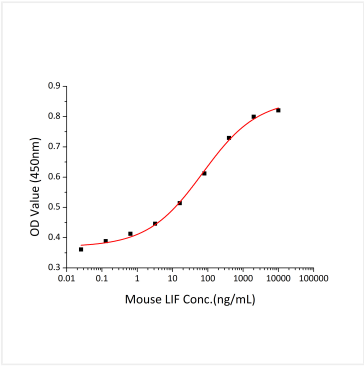
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\* For your safety and health, please wear a lab coat and disposable gloves when handling.

Validation Data



Recombinant Mouse Leukemia inhibitory factor/LIF Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Mouse Leukemia inhibitory factor/LIF stimulates cell proliferation assay using TF-1 Human erythroleukemic cells. The ED<sub>50</sub> for this effect is 35.675-142.7 ng/mL, corresponding to a specific activity of 7.00×10<sup>4</sup>~2.80×10<sup>4</sup> units/mg.