

# Recombinant Human LIF Protein (His Tag)

Catalog Number:PKSH031991



**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

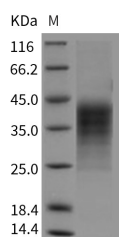
## Description

<b>Synonyms</b>	Leukemia Inhibitory Factor;LIF;Differentiation-Stimulating Factor;D Factor;Melanoma-Derived LPL Inhibitor;MLPLI;Emfilermin;LIF;HILDA;CDF;DIA
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met 1-Phe202
<b>Accession</b>	P15018
<b>Calculated Molecular Weight</b>	21.2 kDa
<b>Observed molecular weight</b>	35-42 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Measured by its ability to inhibit the proliferation of M1 mouse myeloid leukemia cells. The ED50 for this effect is typically 0.2-1 ng/ml.

## Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

Leukemia inhibitory factor (LIF) is a pleiotropic glycoprotein belonging to the IL-6 family of cytokines. It's involved in growth promotion and cell differentiation of different types of target cells; influence on bone metabolism; cachexia; neural development; embryogenesis and inflammation. LIF has potent proinflammatory property; being the inducer of the acute phase protein synthesis and affecting the cell recruitment into the area of damage or inflammation. LIF is also one

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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- $\alpha$ ) 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 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 origin.

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