
Product Data Sheet

Product Name: LIF Human

Cat. No.: GP20719

Batch No.: 1

Product Data

Purity	Greater than 98.0% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.	Source	Escherichia Coli.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.	Shipping Condition	Shipped at Room temp.
Synonyms	CDF; HILDA; D-FACTOR; Differentiation- stimulating factor; Melanoma-derived LPL inhibitor; MLPLI; Emfilermin; Leukemia inhibitory factor; LIF; DIA.		
Amino Acid Sequence	SPLPITPVNA TCAIRHPCHN NLMNQIRSQL AQLNGSANAL FILYYTAQGE PFPNNLDKLC GPNVTDFFPPF HANGTEKAKL VELYRIVVYL GTSLGNITRD QKILNPSALS LHSKLNATAD ILRGLLSNVL CRLCSKYHVG HVDVTYGPDT SGKDVVFQKKK LGCQLLGKYK QIIAVLAQAF.		
Solubility	It is recommended to reconstitute the lyophilized Leukemia Inhibitory Factor (LIF) in sterile water not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Leukemia Inhibitory Factor (LIF) was lyophilized from a concentrated (1mg/ml) sterile solution containing 1xPBS pH 7.4.		

Introduction

Leukemia Inhibitory Factor also called LIF is a lymphoid factor that promotes long-term maintenance of embryonic stem cells by suppressing spontaneous differentiation. Leukemia Inhibitory Factor has several functions such as cholinergic neuron differentiation, control of stem cell pluripotency, bone & fat metabolism, mitogenesis of factor dependent cell lines & promotion of megakaryocyte production in vivo. Human and mouse LIF exhibit a 78% identity in its amino acid sequence.

Caution: Product has not been fully validated for medical applications. For research use only.

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Biological Activity

The ED50 was determined by the M1 cell differentiation assay is < 0.01 ng/ml, corresponding to a specific activity of 100,000,000IU/mg.

Stability

Lyophilized Leukemia Inhibitory Factor (LIF) although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution Leukemia Inhibitory Factor (LIF) should be stored at 4°C between 2-7 days and for future use below -18°C .For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.

Background

Leukemia Inhibitory Factor (LIF) Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 180 amino acids and having a molecular mass of 19.7kDa.The Leukemia Inhibitory Factor (LIF) is purified by proprietary chromatographic techniques.

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