
Product Data Sheet

Product Name: LIF Rat
 Cat. No.: GP20725
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Leukemia inhibitory factor; Cholinergic neuronal differentiation factor; Lif.		
Amino Acid Sequence	SPLPITPVNA TCAIRHPCHG NLMNQIKSQL AQLNGSANAL FISYYTAQGE PFPNNVDKLC APNMTDFPPF HANGTEKTKL VELYRMVTYL GASLTNITWD QKLNLP TAVS LQIKLNATTD VMRGLLSSVL CRLCNKYHVG HVDVPCVPDN SSKEAFQRKK LGCQLLGTYK QVISVLAQAF .		
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	LIF Rat was lyophilized from 0.2µm filtered concentrated solution in 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.

Biological Activity

The activity of rat LIF is determined by the ability to induce differentiation of M1 myeloid leukemic cells. The minimum detectable concentration of rat LIF in this assay is 0.5ng/mL.

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

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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) Rat Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 180 amino acids and having a molecular mass of 19.8 kDa. The Leukemia Inhibitory Factor (LIF) is purified by proprietary chromatographic techniques.

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