
Product Data Sheet

Product Name: LIF Human, Yeast
 Cat. No.: GP20721
 Batch No.: 1

Product Data

Purity	>98%	Source	Pichia pastoris.
Physical Appearance	solid	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	<p>S P L P I T P V N A T C A I R H P C H N N L M N Q I R S Q L A Q L N G S A N A L F I L Y Y T A Q G E P F P N N L D K L C G P N V T D F P P F H A N G T E K A K L V E L Y R I V V Y L G T S L G N I T R D Q K I L N P S A L S L H S K L N A T A D I L R G L L S N V L C R L C S K Y H V G H V D V T Y G P D T S G K D V F Q K K K L G C Q L L G K Y K Q I I A V L A Q A F.</p>		
Solubility	It is recommended to reconstitute the lyophilized LIF in sterile 18M-cm H ₂ O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	The protein was lyophilized from a 0.2 µm filtered PBS.		

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 biological activity of recombinant human LIF was measured by the ability to induce differentiation of murine M1 myeloid leukemic cells. The minimal detectable concentration of human LIF in this assay is <0.05 ng/mL. The specific activity is > 1 x

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

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108 units/mg.

Stability

Lyophilized LIF although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution LIF should be stored at 4°C between 2-7 days and for future use below -18°C . Please prevent freeze-thaw cycles.

Background

LIF Human Recombinant produced in yeast is a single, glycosylated polypeptide chain containing 180 amino acids and having a molecular mass of 58.5 kDa. The LIF is purified by proprietary chromatographic techniques.

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