
Product Data Sheet

Product Name: LIF Mouse
Cat. No.: GP20724
Batch No.: 1

Product Data

Purity Greater than 95.0% as determined by(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.

Physical Appearance Sterile Filtered White lyophilized (freeze-dried) powder.

Synonyms CDF; HILDA; D-FACTOR; Differentiation- stimulating factor; Melanoma-derived LPL inhibitor; MLPLI; Emfilermin; Leukemia inhibitory

Amino Acid Sequence MSPLPITPVNATCAIRHPCHGNLMNQIKNQLAQLNGSANALFISYYTAQGEFPNNVEKLCAPNMTDFPSFHGNGTEKTKLVELYRMVAYLSASLTNITRE

Solubility It is recommended to reconstitute the lyophilized Leukemia Inhibitory Factor (LIF) in sterile water not less than 100µg/ml, which can be used for cell culture. Leukemia Inhibitory Factor (LIF) was lyophilized from a concentrated (1mg/ml) sterile solution containing 20mM Phosphate buffer 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

Activity of murine LIF was determined by the M1 cell differentiation assay which was found to be < 0.01 ng/ml, corresponding to a specific activity of 100,000,000 IU/mg. A standard of 50 Units is defined as the concentration of mouse LIF in 1.0 mL of tissue culture medium that induces the differentiation of 50% of M1 colonies.

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) Murine Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 181 amino acids and having a molecular mass of 20 kDa. The Leukemia Inhibitory Factor (LIF) is purified by proprietary chromatographic techniques.

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

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