

Datasheet

Leukemia Inhibitory Factor

Murine Recombinant

Product	Description	Catalogue-No.	Size
LIF.	Leukemia inhibitory factor, murine recombinant	CB-1206002 CB-1206003	2 µg 10 µg

Product description

Synonyms: CDF, DIA, Differentiation-stimulating factor

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

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 LIF is purified by proprietary chromatographic techniques.

Solubility and storage conditions

It is recommended to reconstitute the lyophilized LIF in sterile distilled water not less than 100 µg/ml, which can be further diluted to other aqueous solutions.

Lyophilized LIF although stable at room temperature for three weeks, should be stored desiccated below -20° C. Upon reconstitution LIF should be stored at 2-8° C up to 7 days and for future use below -20° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Composition

Lyophilized from a concentrated (1 mg/ml) sterile solution containing 20 mM phosphate buffer pH 7.4 and 0.02% Tween 20.

Amino acid sequence: MSPLPITPVN ATCAIRHPCH GNLMNQIKNQ LAQLNGSANA LFISYYTAQG EPFPNNVEKL CAPNMTDFPS FHGNGTEKTK LVELYRMVAY LSASLTNITR DQKVLNPTAV SLQVKLNATI DVMRGLLSNV LCRLCNKYRV GHVDVPPVPD HSDKEAFQRK KLG CQLLGT Y KQVISVVVQA F

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

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

Technical support

For technical support, questions or remarks please contact your local PAN-Biotech partner or the technical department of PAN-Biotech via email (info@pan-biotech.com) or phone +49-8543-601630.

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