

Datasheet

# Leukemia Inhibitory Factor

## Human recombinant

| Product | Description                                  | Catalogue-No. | Size  |
|---------|--|---------------|-------|
| LIF     | Leukemia inhibitory factor human recombinant | CB-1106001    | 10 µg |

### Product description

Synonyms: CDF, HILDA, D-FACTOR, Differentiation-stimulating factor, Melanoma-derived LPL inhibitor, MLPLI, Emfilermin, Leukemia inhibitory factor, LIF, DIA.

Leukemia Inhibitory Factor, also called 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 its amino acid sequence.

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

### Solubility and storage conditions

It is recommended to reconstitute lyophilized LIF in sterile distilled water at not less than 100 µg/ml, which can be further diluted to other aqueous solutions. Lyophilized LIF although stable at room temperature for 3 weeks, should be stored desiccated below -18 °C. Upon reconstitution LIF should be stored at 2-8 °C up to 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.

### Composition

Sterile filtered, white, lyophilized (freeze-dried) powder.

LIF was lyophilized from a concentrated (1 mg/ml) sterile solution containing 1x PBS pH 7.4.

Purity >98% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Amino acid sequence: SPLPITPVNA TCAIRHPCHN NLMNQIRSQL AQLNGSANAL FILYYTAQGE PFPNNLDKLC GPNVTDFFPF HANGTEKAKL VELYRIVVYL GTSLGNITRD QKILNPSALS LHSKLNATAD ILRGLLSNVL CRLCSKYHVG HVDVTYGPDT SGKDVVFQKKK LGCQLLGKYK QIIAVLAQAF

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

### Suitability

FOR RESEARCH USE ONLY!

Not approved for human or animal diagnostic or therapeutic procedures.

### Technical Support

Additional information will be available on our website: [www.pan-biotech.com](http://www.pan-biotech.com)

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](mailto:info@pan-biotech.com)) or phone +49-8543-601630.