



# Product Data Sheet

Recombinant Human LIF

Catalog Number: 100-47

## Product Description

**Alternate Names:** Leukocyte Inhibitory Factor

**Accession Number:** P15018

**Description:** Leukemia inhibitory factor (LIF) is a member of the interleukin 6 (IL-6) family that is made by a variety of adult and embryonic tissues. LIF signals through the glycoprotein 130 (gp130)/LIF receptor (LIFR) heterodimer to activate STAT3 and MAPK signaling. LIF functions during hematopoietic differentiation, neuronal cell differentiation, kidney development, and inflammatory processes. Human LIF may also be an important factor during human embryonic stem cell (hESC) self-renewal, pluripotency, and embryonic implantation.

**Source:** Genetically modified *E.coli*.

**Predicted MW:** Monomer, 19.8 kDa (with 181 amino acids)

**AA Sequence:** MSPLPITPVN ATCAIRHPCH NNLNMQIRSQ LAQLNGSANA LFILYYTAQG EPFPNNLDKL CGPNVTDFFPP FHANGTEKAK LVELYRIVVY LGTSLGNITR DQKILNPSAL SLHSKLNATA DILRGLLSNV LCRLCSKYHV GHVDVITYGPD TSGKDVFQKK KLG CQLLGGY KQIIAVLAQA F

**Formulation:** Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)

## Product Specifications\*

\*Lot-specific values for the following specifications are supplied with each production lot on its corresponding COA.

Specification	Method of Determination	Acceptance Criteria
Purity	Reducing and Non-Reducing SDS-PAGE	≥ 95%
Endotoxin	Kinetic LAL (50% confidence)	≤ 1 EUs/μg
Biological Activity	TF-1 cell proliferation	ED50 ≤ 200 pg/mL (≥ 5.0 x 10 <sup>6</sup> units/mg)

## Product Preparation and Storage

**Country of Origin:** USA

**Shipping:** Room temperature

**Storage Prior to Reconstitution:** -20°C

**Product Reconstitution:** Sterile 10 mM acetic acid at 0.1 mg/mL

**Instructions:** Centrifuge vial before opening. Suspend the product by gently pipetting the above recommended solution down the sides of the vial. DO NOT VORTEX. Allow several minutes for complete reconstitution. For prolonged storage, dilute to working aliquots in a 0.1% BSA solution, store at -80°C and avoid repeat freeze thaws.

### Expiration Date:

12 months from date of receipt when stored at -20°C to -80°C as supplied.

1 month when stored at 4°C after reconstituting as directed.

3 months when stored at -20°C to -80°C after reconstituting as directed.

**THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!**