

Product: **Animal Free Recombinant Human LIF**
Cat #: 300-837P
Powder

Description	Human Leukemia Inhibitory Factor (LIF) is member of the IL-6 family and is made by a variety of tissues. Human LIF signals through gp130 to activate STAT3 in human ESCs. In mouse ESCs, LIF promotes self-renewal and pluripotency, but in human cells there is no indication that LIF has the same function. Instead, FGF-basic (FGF-2) and Activin A are used to promote self-renewal and pluripotent potential. Alternate names: Leukocyte Inhibitory Factor This product is produced with no animal-derived raw products, animal free equipment and animal free protocols.
MW	Non-glycosylated protein, containing 181 amino acids, with a molecular weight of 19.9 kDa.
Physical Appearance	Sterile filtered white lyophilized (freeze-dried) powder.
Source	<i>E. coli</i>
Formulation	Recombinant human LIF is lyophilized with no additives.
Reconstitution	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile at a concentration of 0.1 mg/mL 10 mM acetic acid (AcOH), which can be further diluted into other aqueous solutions.
Stability	Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.
Biological Activity	The activity is determined by its ability to induce proliferation of TF-1 cells and is typically less than 0.07 ng/mL.
Endotoxin Level	Measured by kinetic LAL analysis and is typically ≤ 1 EU/ μ g protein.
AA Sequence	SPLPITPVNA TCAIRHPCHN NLMNQIRSQL AQLNGSANAL FIFYTAQGE PFPNNLDKLC GPNVTDFFPF HANGTEKAKL VELYRIVVYL GTSLGNITRD QKILNPSALS LHSKLNATAD ILRGLLSNVL CRLCSKYHVG HVDVTYGPDT SGKDFVQKKK LGCQLLGKYK QIIAVLAQAF

Purity greater than 98% determined by Reducing and Non-reducing SDS-PAGE.

Protein content determined by Reducing and Non-reducing SDS-PAGE.

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