

GFH47AF Recombinant Human LIF (Animal-Free)

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.

This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

Length	181 aa
Molecular Weight	19.8 kDa
Source	E. coli
Accession Number	P09056
Purity	≥95% determined by reducing and non-reducing SDS-PAGE

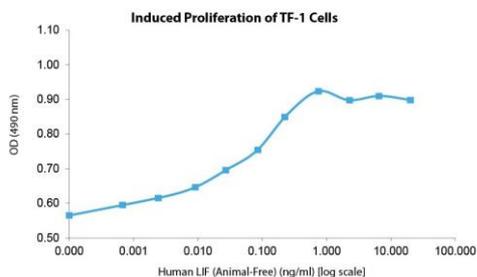
Specifications

Alternative Names	Leukocyte Inhibitory Factor, leukemia inhibitory factor, cholinergic differentiation factor
Biological Activity	Human LIF is fully biologically active when compared to standard. The activity is determined by the induced proliferation of TF-1 cells and it is typically less than 200 pg/ml. This corresponds to an expected specific activity of 5×10^6 units/mg.
Endotoxin Level	≤1.00 EU/μg as measured by kinetic LAL
Formulation	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)
AA Sequence	MSPLPITPVN ATCAIRHPCH GNLMNQIKNQ LAQLNGSANA LFISYYTAQG EPPFNNVEKL CAPNMTDFPS FHGNGTEKTK LVELYRMVAY LSASLTNITR DQKVLNPTAV SIQVKLNATI DVMRGLLSNV LCRLCNKYRV GHVDVPPVPD HSDKEAFQRK KLGQCQLLGTY KQVISVVVQA F

Preparation and Storage

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 10 mM acetic acid at 0.1 mg/ml, which can be further diluted into other aqueous solutions.
Stability and Storage	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.

Data



Induced proliferation of TF-1 cells by Human LIF. Cell proliferation was measured to calculate the ED50.