

Active GMP Recombinant Human LIF protein

Cat. No. LIF-4343HG Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human LIF was produced in E. coli using non-animal reagents in an animal-free facility under cGMP guidelines.
Species	Human
Source	E.coli
Description	Leukemia Inhibitory Factor (LIF) is a lymphoid factor which promotes long-term maintenance of embryonic stem cells by suppressing spontaneous differentiation. LIF has a number of other activities including cholinergic neuron differentiation, control of stem cell pluripotency, bone and fat metabolism, mitogenesis of certain factor dependent cell lines and promotion of megakaryocyte production in vivo.
Form	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by the dose-dependent proliferation of human TF-1 cells is less than 0.1 ng/ml, corresponding to a specific activity of > 1.0 × 10 ⁷ IU/mg.
Molecular Mass	Approximately 19.7 kDa, a single non-glycosylated polypeptide chain containing 180 amino acids.
AA Sequence	SPLPITPVNATCAIRHPCHNNLMNQIRSQLAQLNGSANALFILYYTAQGEFPNNDK LCGPNVTDFFPFHANGTEKAKLVELYRIVVYLGTS LGNITRDQKILNPSALSLSKLN ATADILRGLLSNVLCRLCSKYHVGHVDVITYGPDTS GKDFVQKKKLG CQLLGKYKQII

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	AVLAQAF
Endotoxin	Less than 1 EU/μg of the protein by LAL method.
Purity	>98% by SDS-PAGE and HPLC analyses.
Storage	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably des centigradecated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 centigrade to -70 centigrade. Avoid repeated freeze/thaw centigrade centigradeles.
Reconstitution	Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.
Quality Statement	Our GMP proteins are produced according to relevant sections of the following documents: WHO TRS, No. 822, 1992 Annex 1, Good Manufacturing Practices for Biological Products; USP Chapter 1043, Ancillary Materials for Cell, Gene and Tissue-Engineered Products and USP Chapter 92, Growth Factors and Cytokines Used in Cell Therapy Manufacturing.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

GENE INFORMATION

Gene Name	LIF leukemia inhibitory factor [Homo sapiens]
Official Symbol	LIF

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Synonyms LIF; leukemia inhibitory factor; CDF; cholinergic differentiation factor; DIA; differentiation inhibitory activity; differentiation inducing factor; hepatocyte stimulating factor III; HILDA; human interleukin in DA cells; D factor; melanoma-derived LPL inhibitor; differentiation-inducing factor; hepatocyte-stimulating factor III; differentiation-stimulating factor; MLPLI;

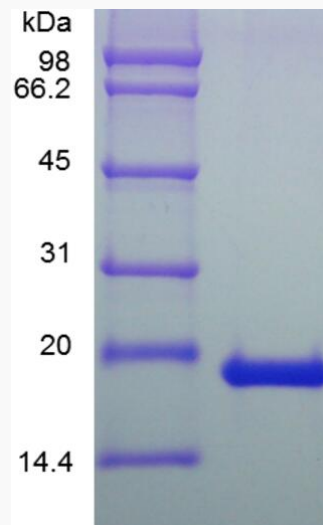
Gene ID [3976](#)


mRNA Refseq [NM_001257135](#)

Protein Refseq [NP_001244064](#)

MIM [159540](#)

UniProt ID [P15018](#)



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