

## Recombinant Mouse Leukemia Inhibitory Factor (rm LIF)

**Leukemia Inhibitory Factor** 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 & fat metabolism, mitogenesis of factor dependent cell lines & promotion of megakaryocyte production in vivo. Human and mouse LIF exhibit a 78% identity in its amino acid sequence.

Human LIF is as active on human cells as it is on mouse cells, though mouse LIF is about 1000 fold less active on human cells than human LIF.

Recombinant mouse LIF produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 181 amino acids and having a molecular mass of 20 kDa.

<b>Synonyms :</b>	HILDA, D-FACTOR, Differentiation-stimulating factor, Melanoma-derived LPL inhibitor (MLPLI), Emfilermin
<b>Source:</b>	<i>Escherichia coli</i>
<b>AA Sequence:</b>	MSPLPITPVN ATCAIRHPCH GNLMNQIKNQ LAQLNGSANA LFISYYTAQG EPFPNNVEKL CAPNMTDFPS FHGNGTEKTK LVELYRMVAY LSASLTNITR DQKVLNPTAV SLQVKLNATI DVMRGLLSNV LCRLCNKYRV GHVDVPPVPD HSDKEAFQRK KLG CQLLGT Y KQVISVVVQA F
<b>Formulation:</b>	Lyophilisate from a 0.22 µm filtered carrier free solution in 25 mM sodium phosphate pH 7.0 + 200mM NaCl
<b>Reconstitution:</b>	Reconstitute in sterile endotoxin free water not less than 100 µg/ml
<b>Stability:</b>	The lyophilized protein is stable for at least 2 years at -20°C. Reconstituted rm LIF is stable for at least 3 months when stored in concentrated working aliquots (100 ng/µl or higher) at -20°C. Avoid repeated freeze/thaw cycles.
<b>Biological Activity:</b>	Determined by its ability to activate STAT following receptor ligand interaction - analysis of mLIF receptor driven STAT activation in murine cell line C2C12 the specific activity is 100M IU/mg
<b>Purity:</b>	95% (verified by SDS-PAGE / silver stain)
<b>Endotoxicity:</b>	The endotoxin level is less than 0.1 ng per µg (1EU/µg) determined by LAL method
<b>Order N°:</b>	rm LIF+Size available sizes: 2 µg, 10 µg, 50 µg

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