Recombinant Human LIF
Catalog # C017
Derived from E.coli

**DESCRIPTION**
Recombinant Human Leukemia Inhibitory Factor is produced by our E.coli expression system and the target
gene encoding Ser23-Phe202 is expressed.

Accession #: P15018
Known as: Leukemia Inhibitory Factor; LIF; Differentiation-Stimulating Factor; D Factor; Melanoma-Derived
LPL Inhibitor; MLPLI; Emfilermin; LIF; HILDA

**FORMULATION**
Lyophilized from a 0.2 μm filtered solution of 20mM PB, 150mM NaCl, 0.02% Tween 20, pH 7.4.

**SHIPPING**
The product is shipped at ambient temperature.
Upon receipt, store it immediately at the temperature listed below.

**STORAGE**
Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks.
Reconstituted protein solution can be stored at 4-7°C for 2-7 days.
Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**RECONSTITUTION**
Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
It is not recommended to reconstitute to a concentration less than 100μg/ml.
Dissolve the lyophilized protein in distilled water.
Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

**QUALITY CONTROL**
Bioactivity* EDSO is less than 0.01 ng/ml. Specific Activity of 1.0 x 10^8 IU/mg.
measured by the M1 cell differentiation assay.

Purity: Greater than 95% as determined by reducing SDS-PAGE.
Endotoxin: Less than 0.1 ng/μg (1 IEU/μg).

**AMINO ACID SEQUENCE**
MSPLPITPVNATCAIRHPCHNLMLNQJRQRSQALIQNSANLFLYTYTAQQEPFPNLDKLCGPNTDFPPPFBANFTKAKLVEL
RMYVLYGTSGLGTRDQKILNPSALSLLHSKLNATADILRGLLSNVLCRLCSKHY4VGHVDVTYGPTSGDKDFQK
KQIIAVALAQAF

**BACKGROUND**
Leukemia Inhibitory Factor (LIF) is a lymphoid factor that 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. Human and murine mature LIF
exhibit a 78% sequence identity at the amino acid level. Human LIF is equally active on human and mouse cells.
Murine LIF is approximately 1000 fold less active on human cells than human LIF.

**SDS-PAGE**

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*FOR RESEARCH USE ONLY*