Technical Data Sheet

Recombinant Human Leukemia inhibitory Factor (rHuLIF)

Human Leukemia inhibitory factor

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.

Catalog Number:	RC214-18
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 19.7 kDa, a single non-glycosylated polypeptide chain containing 180 amino acids.
Quantity:	5μg/10μg/1000μg
AA Sequence:	SPLPITPVNA TCAIRHPCHN NLMNQIRSQL AQLNGSANAL FILYYTAQGE PFPNNLDKLC GPNVTDFPPF HANGTEKAKL VELYRIVVYL GTSLGNITRD QKILNPSALS LHSKLNATAD ILRGLLSNVL CRLCSKYHVG HVDVTYGPDT SGKDVFQKKK LGCQLLGKYK QIIAVLAQAF
Purity:	>98% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The specific activity determined by inducing differentiation of murine M1 myeloid leukemic cells. The minmun detectable concentration of rHuLIF in this assay is 0.5 ng/ml, corresponding to a specific activity of $>2 \times 10^6$ IU/mg, where 50 units is defined as the amount of rHuLIF required to induce differentiation in 50% of the M1 colonies in 1ml agarcultures.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2μm filtered concentrated solution in 20mM PB, pH 7.4, with 0.02% TWEEN 20.
Endotoxin:	Less than 1EU/μg of rHuLIF as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. 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°C. Further dilutions should be made in appropriate buffered solutions.

Storage:	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.
Usage:	This material is offered by Bio Basic Canada Inc. for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.

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