



## Technical Data Sheet

### Recombinant Mouse Leukemia inhibitory factor (rMu LIF)

#### *Recombinant Mouse 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. Mouse LIF is a 20 kDa protein containing 181 amino acid residues.

Catalog Number:	RC234-18
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 20 kDa, a single non-glycosylated polypeptide chain containing 181 amino acids.
Quantity:	2ug/10µg/1.0mg
Purity:	>98% by SDS-PAGE and HPLC analyses.
Biological Activity:	The activity of mouse LIF is determined by the ability to induce differentiation of murine M1 myeloid leukemic cells. The minimum detectable concentration of mouse LIF in this assay is 0.5 ng/mL. The specific activity is $>1 \times 10^8$ units/mg, where 50 units is defined as the amount of mouse LIF required to induce differentiation in 50% of the M1 colonies in 1 mL agar cultures.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution in 20mM PB, pH 7.4, with 0.02% TWEEN 20.
AA Sequence:	MSPLPITPVNATCAIRHPCHGNLMNQIKNQLAQLNGSANALFISYYTAQGEPPNNEKLC APNMTDFPSFHNGTEKTKLVELYRMVAYLSASLTNITRDQKVLNPTAVSLQVKLNATIDVM RGLLSNVLCRLCNKYRVGHVDVPPVPDHSKAEAFQRKKGCOLLGTQKOVISVVVQAF
Endotoxin:	Less than 1EU/µg of rMuLIF 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 $\leq -20^{\circ}\text{C}$ . Further dilutions should be made in appropriate buffered solutions.



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**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 Inc. for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.