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Recombinant Mouse Leukemia Inhibitory Factor (LIF)

Description: Leukemia Inhibitory Factor also called LIF is a lymphoid factor that promotes long-term maintenance of embryonic stem cells by suppressing spontaneous differentiation. Leukemia Inhibitory Factor 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 human LIF produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 181 amino acids and having a molecular mass of 20.0 kDa.

Source:	E. coli
Molecular Weight:	20.0 kDa
Purity:	> 90% by SDS-PAGE and Silverstain
Endotoxin level:	< 0.1 ng per µg (IEU/µg) of rm LIF
Stabilizer:	none
Buffer:	PBS
Formulation:	lyophilized

Biological Activity: Activity of murine LIF was determined by its ability to induce differentiation of murine M1 myeloid leukemic cells. Min. detectable conc. of murine LIF in this specific bioassay was found to be 0.5 ng/mL. The specific activity is 1×10^8 U/mg, where 50U is defined as the amount of murine LIF required to induce differentiation in 50% of the M1 colonies per ml of agar culture.

Reconstitution: It is recommended to reconstitute the lyophilized Leukemia Inhibitory Factor (LIF) in sterile water not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized Leukemia Inhibitory Factor (LIF) although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Leukemia Inhibitory Factor (LIF) should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Avoid repeated freeze-thaw cycles.**

Note: The sale and/or commercial use of recombinant mouse LIF is prohibited in the United States of America (USA).

Usage: Mouse LIF is offered for research use. Not for drug use. **Not for human use.**

Catalogue number: M30-007

Size: 10 µg

****please note: always centrifuge product before opening Vial.****