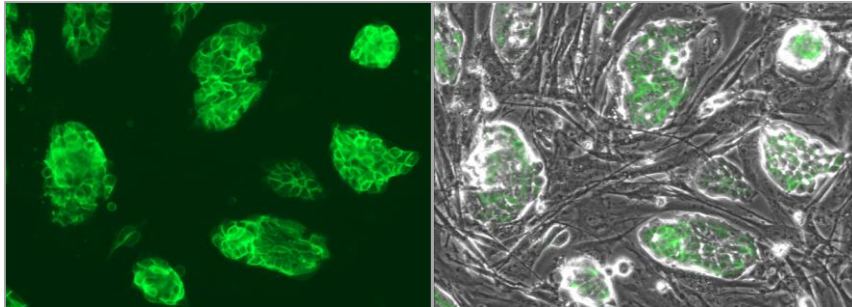


LIF, Mouse Recombinant

Catalog Number: ST12007

Size	1 mL
Concentration	10 µg/mL
Source	E. coli
Species	Mouse
Molecular Mass	20 kDa
Storage and Stability	Store at 2-8°C. Stable for 6 months from date of receipt when stored as directed.
Formulation	Sterile liquid in phosphate-buffered saline, 0.02% Tween 20, 1% BSA, and 0.22 µm filtered.
Purity	Greater than 98% as determined by SDS-PAGE analysis
Endotoxin Level	Less than 1.0 EU/µg of mouse LIF as determined by the LAL assay
Biological Activity	Inhibits differentiation of mouse ES cells at 10 ng/mL



Mouse ES cells treated with 10 ng/mL mouse LIF maintain a typical ES cell morphology and stain positive for SSEA-1. Cells grown in the absence of mouse LIF exhibit differentiated morphology and loose SSEA-1 staining.

Description	Mouse recombinant Leukemia Inhibitory Factor (LIF) is a bioactive protein that promotes self-renewal and long-term maintenance of embryonic stem cells by suppressing spontaneous differentiation. LIF is also involved in a wide variety of biological processes including neuronal survival and formation, control of stem cell pluripotency, hematopoietic cell proliferation, bone and fat metabolism, and promotion of megakaryocyte production in vivo. Mouse LIF is a 20 kDa protein containing 181 amino acid residues.
References	<p>Carpenter, M.K., et al. (2001) Enrichment of neurons and neural precursors from human embryonic stem cells. <i>Exp Neurol</i> 172(2): 383-397. PMID: 11716562</p> <p>Gearing, D.P., et al. (1987) Molecular cloning and expression of cDNA encoding a murine myeloid leukaemia inhibitory factor (LIF). <i>EMBO J</i> 6(13): 3995-4002. PMID: 3127201</p> <p>Metcalf, D. (2003) The unsolved enigmas of leukemia inhibitory factor. <i>Stem Cells</i> 21(1): 5-14. PMID: 12529546</p>

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