

## 32-20460: Recombinant Murine LIF(Discontinued)

**Reactivity :** Mouse

**Alternative Name :** Leukemia Inhibitory Factor, Differentiation-stimulating factor, D factor, Melanoma-derived LPL inhibitor (MLPLI), Interleukin 6 family cytokine

### Description

**Source:** **E.coli** LIF is a pleiotrophic factor produced by multiple cell types, including T cells, myelomonocytic lineages, fibroblasts, liver, heart and melanoma. LIF promotes long-term maintenance of embryonic stem cells by suppressing spontaneous differentiation. Other activities include the stimulation of acute phase protein synthesis by hepatocytes, stimulation of differentiation of cholinergic nerves, and suppression of adipogenesis by inhibiting the lipoprotein lipase in adipocytes. While human LIF is active on mouse cells and is widely used in the maintenance of murine ESC to prevent spontaneous differentiation, mouse LIF is not active on human cells due to its inability to bind to the human LIF receptor. Recombinant Murine LIF is a 19.9 kDa protein containing 180 amino acids residues, including three disulfide bonds.

### Product Info

**Amount :** 5 µg / 25 µg

**Purification :** Purity: >= 98% by SDS-PAGE gel and HPLC analyses.

**Content :** This recombinant protein is supplied in lyophilized form.

**Amino Acid :** SPLPITPVNA TCAIRHPCHG NLMNQIKNQL AQLNGSANAL FISYYTAQGE PFPNNVEKLC APNMTDFPSF  
HGNGTEKTKL VELYRMVAYL SASLTNITRD QKVLNPTAVS LQVKLNATID VMRGLLSNVL CRLCNKYRVG  
HVDVPPVPDH SDKEAFQRKK LGCQLLGTYK QVISVVVQAF

### Application Note

Murine LIF is fully biologically active when compared to standards. The  $ED_{50}$  as determined by the M1 cell differentiation assay is  $\leq 0.05$  ng/ml, corresponding to a specific activity of  $\geq 2 \times 10^7$  units/mg.