

AR31198PU-S

Mouse Leukemia inhibitory factor - Purified

Alternate names:

D factor, Differentiation-stimulating factor, Emfilermin, HILDA, LIF, MLPLI, Melanoma-derived LPL inhibitor

Quantity:

5 µg

Background:

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.

Uniprot ID:

[P09056](#)

NCBI:

[NP_032527.1](#)

GenelD:

[16878](#)

Species:

Mouse

Source:

E. coli

Format:

State: Lyophilized (0.2µ Sterile filtered) purified protein with no Additives

Purity: >98% by SDS-PAGE and HPLC analysis

Endotoxin Level: < 0.1 ng per µg (1EU/µg)

Reconstitution: Restore in sterile water to a concentration of 0.1-1.0 mg/ml. Centrifuge the vial before opening.

Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Description:

Recombinant Mouse LIF is a 19.9 kDa protein containing 180 amino acids residues, including three disulfide bonds.

AA Sequence:

SPLPITPVNA TCAIRHPCHG NLNQIKNQL AQLNGSANL FISYYTAQGE PFPNNVEKLC
APNMDFPSF HGNGTEKTKL VELYRMVAYLÂ SASLTNITRD QKVLNPTAVS LQVKLNATID
VMRGLLSNVL CRLCNKYRVG HVDVPPVPDH SDKEAFQRKK LGCQLLGTYK QVISVVVQAF

Biological Activity: Murine LIF is fully biologically active when compared to standards. The ED50 as determined by the M1 cell differentiation assay is ≤ 0.05 ng/ml, corresponding to a specific activity of ≥ 2 x 10⁷ units/mg.

Molecular weight: 19.9 kDa

Storage:

Store lyophilized at 2-8°C for 6 months or at -20°C long term.

After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.