

LIF, Human CellExp™, human recombinant

CATALOG #:	7267-10	10 µg
ALTERNATE NAMES:	LIF, CDF, DIA, HILDA, MLPLI	
SOURCE:	HEK 293 cells (Ser 23 – Phe 202)	
PURITY:	≥ 95% by SDS-PAGE gel	
MOL. WEIGHT:	Calculated MW of 19.9 kDa with Gly-Pro at the N- terminus. The predicted N-terminus is Ser 23. DTT-reduced Protein migrates as 35-45 kDa.	
ENDOTOXIN LEVEL:	<1EU/µg by LAL method	
FORM:	Lyophilized	

FORMULATION: Sterile filtered through a 0.22 micron filter. Lyophilized from 1 x PBS, pH 7.4. Generally 5-8% Mannitol or trehalose is added as a protectant before lyophilization.

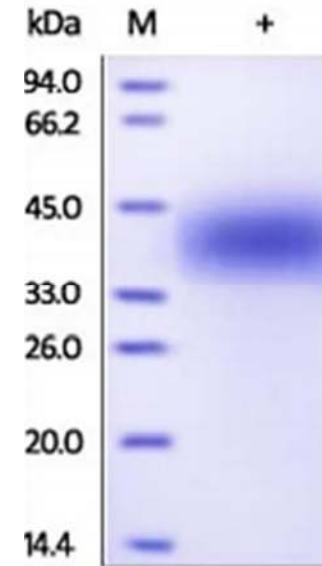
STORAGE CONDITIONS: Store at -20°C. After reconstitution, aliquot and store at -20°C and use within 3 months. Avoid repeated freezing and thawing cycles.

RECONSTITUTION: Centrifuge the vial prior to opening. Reconstitute in sterile deionized water to a concentration of 50 µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. For extended storage, it is recommended to store at -20°C.

DESCRIPTION: Leukemia inhibitory factor, or LIF, an interleukin 6 class cytokine, is a protein in cells that affects cell growth and development. 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. Removal of LIF pushes stem cells toward differentiation, but they retain their proliferative potential or pluripotency. Therefore LIF is used in mouse embryonic stem cell culture. It is necessary to maintain the stem cells in an undifferentiated state, however genetic manipulation of embryonic stem cells allows for LIF independent growth, notably overexpression of the gene Nanog. LIF is not required for culture of human embryonic stem cells.

BIOLOGICAL ACTIVITY:

Determined by its ability to stimulate the proliferation of human TF-1 cells. The ED₅₀ <0.1 ng/ml, corresponding to a specific activity of >1X10⁷ units/mg.



Human recombinant LIF

RELATED PRODUCTS:

- LIF, Human CellExp™, murine recombinant (Cat # 7268-10)
- LIF, human recombinant (Cat # 4923-10, -50, -1000)
- LIF, murine recombinant (Cat # 4924-10, -1000)
- LIF Antibody (Cat # 5216-100)

FOR RESEARCH USE ONLY! Not to be used in humans.