

HumanKine[®] LIF (Recombinant Human)



Animal Component-Free	Human cell expressed	Tag-Free	Endotoxin Free
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Product Description

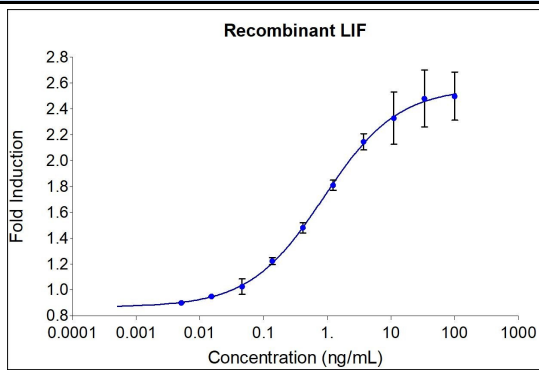
Recombinant Human LIF is a pleiotropic factor produced by numerous cell types which includes myelomonocytic lineages, T cells, fibroblasts, melanoma, liver, and heart. LIF promotes long-term maintenance of embryonic stem cells by suppressing spontaneous differentiation. Other activities include the stimulation of acute phase protein synthesis by hepatocytes, stimulation of differentiation of cholinergic nerves, and suppression of adipogenesis by inhibiting the lipoprotein lipase in adipocytes. Mature human LIF (180 aa) shares 78%, 82%, 91%, 88 and 87% aa sequence identity with mouse, rat, canine, bovine, and porcine LIF, respectively. To reduce spontaneous differentiation, LIF is typically added to stem cell culture medium.

Alternative Names	CDF, D factor, DIA, Emfilermin, HILDA, Leukemia inhibitory factor, LIF, Melanoma derived LPL inhibitor, MLPLI
Source	Human Embryonic Kidney cells (HEK293). HEK293-derived LIF protein

Specifications

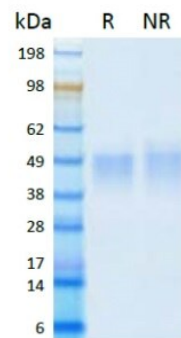
Test	Method	Specification
Activity	Dose- dependent stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line).	Typically ≤ 1 ng/mL EC50
Molecular Mass	SDS-PAGE	35-53 kDa, glycosylated
Purity	SDS-PAGE	>95%
Endotoxin	LAL	<1 EU/ μ g

Activity Data



The activity was determined by the dose-dependent stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line) using Promega CellTiter96[®] Aqueous Non-Radioactive Cell Proliferation Assay.

SDS-PAGE



Preparation	
Shipping Temperature	ambient temperature
Formulation	1x PBS, See Certificate of Analysis for details
Reconstitution	Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile 1x PBS containing 0.1% endotoxin-free recombinant human serum albumin (HSA).

Stability and Storage	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)
	Lyophilized	-20°C to -80°C	Until Expiry Date
	Lyophilized	Room Temperature	2 weeks
	Reconstituted as per CofA	-20°C to -80°C	6 months
	Reconstituted as per CofA	4°C	1 week
Avoid repeated freeze-thaw cycles.			

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