Active Recombinant Human LIF, His-tagged

Cat. No. LIF-8868H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human LIF was produced in the endosperm tissue of barley grain (Hordeum vulgare).
Species	Human
Source	Hordeum Vulgare
Description	Leukemia inhibitory factor (LIF) is a pleiotropic lymphoid factor belonging to the interleukin-6 family of cytokines. It was initially described as a factor inhibiting the proliferation of myeloid leukemia cells and inducing their differentiation into macrophages. Other activities of LIF include inhibition of adipogenesis and roles in cholinergic neuron differentiation, hematopoeisis, inflammation and bone metabolism. LIF inhibits the differentiation of embryonic stem cells, it is therefore important in ES cell culture.
Predicted N Terminal	His
Form	Sterile filtered through a 0.2 μm filter. Lyophilized from PBS, pH 7.2
Bio-activity	e bioactivity ofhuman LIF was determined by its ability to induce proliferation of TF-1cells in a dose dependent manner. The ED50 for this batch of recombinant human LIF is 0.5 ng/ml, corresponding to 2.2 x 10E6 U/mg specific activity.
Molecular Mass	Recombinant human LIF contains 180 amino acids and a 16 a.a. histidine-based tag for a total length of 196 a.a. and has a predicted molecular mass of 21.8 kDa

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	including his-tag. As a result of glycosylation, the recombinant protein migrates with an apparent molecular mass of 25-30 kDa in SDS-PAGE.
Endotoxin	Endotoxin level is less than 0.05EU/μg as measured by turbidimetric kinetic assay.
Purity	>98% by SDS-PAGE gel analysis.
Storage	The lyophilized protein is stable at room temperature for few weeks. Reconstituted protein should be used immediately or stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile water to a concentration of no less than 100 μg/ml. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

GENE INFORMATION

Gene Name	LIF leukemia inhibitory factor [Homo sapiens]
Official Symbol	LIF
Synonyms	LIF; leukemia inhibitory factor; CDF; cholinergic differentiation factor; DIA; differentiation inhibitory activity; differentiation inducing factor; hepatocyte stimulating factor III; HILDA; human interleukin in DA cells; D factor; melanoma-derived LPL inhibitor; differentiation-inducing factor; hepatocyte-stimulating factor III; differentiation-stimulating factor; MLPLI;
Gene ID	3976
mRNA Refseq	NM_001257135

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Protein Refseq	NP_001244064
MIM	159540
UniProt ID	P15018
Chromosome Location	22q12.2
Pathway	Adipogenesis, organism-specific biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Direct p53 effectors, organism-specific biosystem; Jak-STAT signaling pathway, organism-specific biosystem; Jak-STAT signaling pathway, conserved biosystem; MicroRNAs in cardiomyocyte hypertrophy, organism-specific biosystem;
Function	cytokine activity; growth factor activity; leukemia inhibitory factor receptor binding; leukemia inhibitory factor receptor binding; receptor binding;

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA