Active Recombinant Mouse LIF,His-tagged

Cat. No. Lif-8869M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse LIF was produced in the endosperm tissue of barley grain (Hordeum vulgare).
Species	Mouse
Source	Hordeum Vulgare
Description	LIF (leukemia inhibitory factor, myeloid leukemia inhibitory factor) a pleiotropic lymphoid factor was initially described as a factor that inhibits the proliferation of myeloid leukemia cells and induces their differentiation into macrophages. Other activities of LIF include inhibition of adipogenesis, cholinergic neuron differentiation and bone metabolism.
Predicted N Terminal	His
Form	PBS, pH 7.2, sterile filtered.
Bio-activity	The bioactivity of murine LIF was determined by its ability to induce differentiation of murine M1 myeloid leukemia cells. The ED50 value for this effect is typically< 1="" ng/ml,="" corresponding="" to="" a="" specific="" activity="" of="">5 x 10e7 U/mg (where 50 U is defined as the amount of mLIF required to induce differentiation of 50% of M1 cells). The activity is comparable to mLIF from other commercial sources.
Molecular Mass	Recombinant mouse LIF contains 188 amino acids and a 16 a.a. Histidine-based tag for a total length of 204 a.a. and has a predicted molecular mass of 22.8 kDa. As a

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	result of glycosylation, the recombinant protein migrates with an apparent molecular mass of 28-30 kDa in SDS-PAGE.
Endotoxin	Endotoxin level is less than 0.05EU/μg as measured by turbidimetric kinetic assay.
Purity	>95% 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 [Mus musculus]
Official Symbol	Lif
Synonyms	LIF; leukemia inhibitory factor; d factor; differentiation-stimulating factor;
Gene ID	16878
mRNA Refseq	NM_001039537
Protein Refseq	NP_001034626
Pathway	Adipogenesis, organism-specific biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved

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	biosystem; ESC Pluripotency Pathways, 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; cytokine activity; growth factor activity; growth factor activity; leukemia inhibitory factor receptor binding; receptor binding;

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