

Recombinant Human Leukemia Inhibitory Factor (LIF)

CATALOG #:	4923-10	10 µg
	4923-50	50 µg
	4923-1000	1 mg
LOT #:		
SOURCE:	<i>E. coli</i>	
PURITY:	>95% by SDS-PAGE and HPLC analyses Endotoxin level is <0.1 ng per µg of LIF	
FORMULATION:	Lyophilized from a concentrated (1 mg/ml) sterile solution containing 1x PBS.	
RECONSTITUTION:	Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. The solution can then be diluted into other aqueous buffers and stored at 4°C for 1 week or -20°C for future use.	
STORAGE CONDITIONS:	The lyophilized human LIF should be stored desiccated below 0°C. Reconstituted LIF should be stored at working aliquots at -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.	
DESCRIPTION:	Leukemia Inhibitory Factor (LIF) is a lymphoid factor that promotes long-term maintenance of embryonic stem cells by suppressing spontaneous differentiation. LIF 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. Human and mouse LIF exhibit a 78% identity in its amino acid sequence. Human LIF is as active on human cells as it is on mouse cells, though mouse LIF is about 1000 fold less active on human cells, than human LIF. Recombinant human LIF produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 180 amino acids and having a molecular mass of 19.7 kDa.	
BIOLOGICAL ACTIVITY:	The ED ₅₀ determined by the M1 cell differentiation assay is < 0.01 ng/ml, corresponding to a specific activity of 100MIU/mg.	

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