

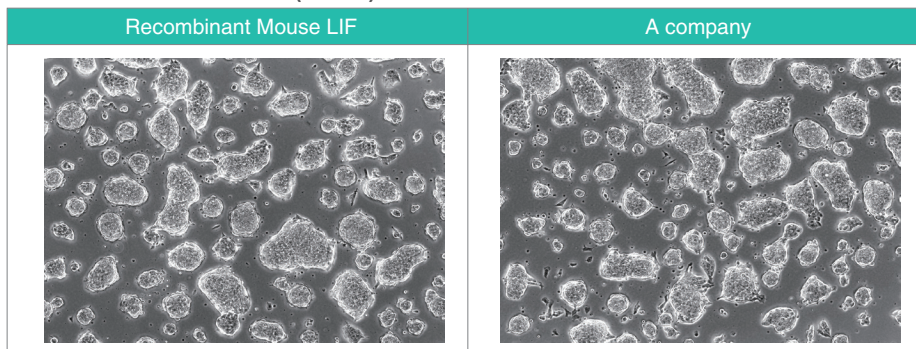
Recombinant LIF Proteins for ES/iPS cells

Description

Leukemia Inhibitory Factor (LIF) is a lymphoid factor that promotes long-term maintenance of pluripotent embryonic stem cells by suppressing spontaneous differentiation. Recombinant Mouse and Human Leukemia inhibitory factors (mLIF/hLIF) are produced in *E. coli*. They contain a single non-glycosylated polypeptide chain 181 amino acids and have a molecular mass of 20kDa. The mLIF/hLIF are purified by proprietary techniques using HPLC and FPLC[®] chromatography.

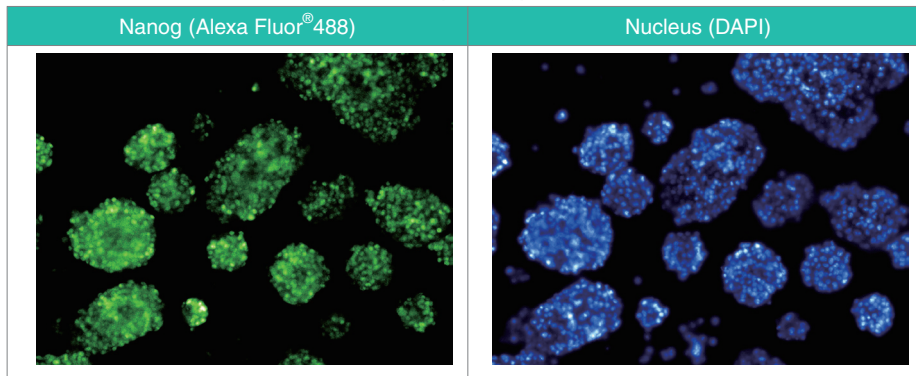
Applications

Cell culture of mouse ES (CGR8)



Recombinant Mouse LIF shows the same colony forming compared to A company's product.

Detection of undifferentiated markers (Nanog)



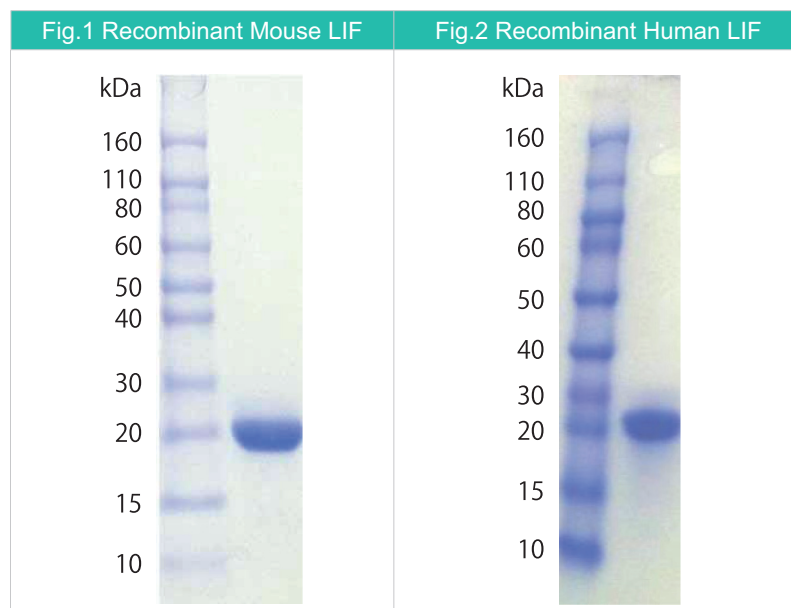
Nanog is detected in most of cells.

Data courtesy of Teruhisa Kawamura, MD, PhD, Career-Path Prootion Unit For Young Life Scientists , Kyoto University

Specification

		Recombinant Mouse LIF	Recombinant Human LIF
Quality evaluation	Bioactivity	approx. 10^8 units/mg (tested by the M1 cell differentiation assay)	
	Undifferentiated state preservation	1000 units/ml (tested by mouse ES cell)	Not tested
Source		Escherichia Coli	
Purity (SDS-PAGE)		Greater than 99% (See Fig. 1 on the reverse side of this paper)	Greater than 95% (See Fig. 2 on the reverse side of this paper)
Formulation		0.22 μ m filtered sterile liquid, PBS with 0.02% Tween-20 and 1% BSA	
Storage		Maintain at 4°C for 12 months. Freeze-thaw should be avoided as it results in loss of activity	
Recommended concentration		10^7 units, identical 100 μ g of pure protein, are sufficient to treat 10 L of ES cell.	0.5×10^7 units, identical 50 μ g of pure protein, are sufficient to treat 5.0 L of stem cells including human embryonic stem cells, neural stem cells, hematopoietic stem cells, mesenchymal stem cells and induced pluripotent stem cells.

SDS PAGE of mLIF Sample



Ordering Information

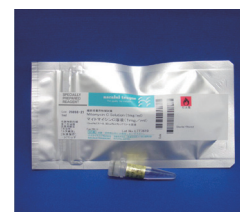
Product Name	Storage	Product No.	PKG Size
Recombinant Mouse LIF	Refrigerator	NU0012-1	1.0 ml (10 ⁶ units/ml)
		NU0012-2	1.0 ml (10 ⁷ units/ml)
Recombinant Human LIF	Refrigerator	NU0013-1	1.0 ml (10 ⁶ units/ml)
		NU0013-2	1.0 ml (0.5×10 ⁷ units/ml)

Recombinant LIF Proteins are produced by Nacalai USA, Inc.

FPLC® is a registered trademark of GE Healthcare.

Alexa Fluor® is a registered trademark of Life Technologies.

Mitomycin C Solution(1mg/ml) for preparation of feeder cells



Features

Ready-to-use
High stability

- Sterile tested for cell culture, do not solidify in freezer
- For 2 years in freezer, protected from light.

Components

1mg/ml of Mitomycin C in 10v/v% Ethanol and 90v/v% Ethylene Glycol Solution

Ordering Information

Product Name	Storage	Product No.	PKG Size
Mitomycin C Solution (1mg/ml)	Freezer	20898-21	1ml

For research use only, not intended for diagnostic or drug use.

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