



碧云天生物技术/Beyotime Biotechnology
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BeyoEmbryo™ Recombinant Mouse LIF (胚胎细胞培养级)

产品编号	产品名称	包装
C0936-10µg	BeyoEmbryo™ Recombinant Mouse LIF (胚胎细胞培养级)	100µl
C0936-50µg	BeyoEmbryo™ Recombinant Mouse LIF (胚胎细胞培养级)	500µl
C0936-200µg	BeyoEmbryo™ Recombinant Mouse LIF (胚胎细胞培养级)	2ml

产品简介:

Species	Gene ID	Accession	Source	Length	MW	Tag
Mouse	16878	P09056	<i>E.coli</i>	~180aa	19.9kDa	-

About this protein	
Name	Recombinant Mouse LIF (Recombinant Mouse Leukemia inhibitory Factor;rmLIF; rmLIF; mLIF); 重组小鼠白血病抑制因子
Synonyms	CDF; D factor; DIA; DI; differentiation inhibitory activity; differentiation stimulating factor; emfilermin; differentiation-stimulating factor; HILDA; cholinergic differentiation factor; leukemia inhibitory factor; melanoma-derived LPL inhibitor; MLPLI; hepatocyte-stimulating factor III; rMuLIF; recombinant murine leukemia inhibitory factor
Source	Recombinant protein containing the truncated mouse leukemia inhibitory factor is expressed in <i>E. coli</i> .
Purity	Sterile, ≥ 95% by SDS-PAGE.
Biological Activity	Fully biologically active when compared to standard. The specific activity is determined by adding LIF to maintain the morphology and inhibit the differentiation of mouse embryonic stem cell (E14 cell). And the larger in embryoid body (EB)' s diameter (um), the stronger biological activity.
Physical Appearance	Sterile filtered transparent liquid
Formulation	Liquid in 1X PBS, 50% glycerol, pH7.4.
Category	Cytokine
Background	Leukemia inhibitory factor (LIF) is a member of Interleukin 6 family. This protein is mainly expressed in the trophectoderm of the developing embryo, with its receptor LIFR expressed throughout the inner cell mass [1]. LIF has the capacity to induce terminal differentiation in leukemic cells. Its activities include the induction of hematopoietic differentiation in normal and myeloid leukemia cells, the induction of neuronal cell differentiation, and the stimulation of acute-phase protein synthesis in hepatocytes. LIF is used in mouse embryonic stem cell culture, because that removal of LIF pushes stem cells toward differentiation, but they retain their proliferative potential or pluripotency. It is also used in phase II clinical trial, which can assist embryo implantation in women who have failed to become pregnant despite assisted reproductive technologies (ART). Mature mouse LIF shares 78% a.a. sequence identity with Human LIF.

- 碧云天生产的 BeyoEmbryo™ Recombinant Mouse LIF (胚胎细胞培养级), 是一种胚胎细胞培养级的重组小鼠 LIF 蛋白, 经验证可以有效维持小鼠胚胎干细胞的增殖和干性。本产品用于培养 E14 小鼠胚胎干细胞的 Embryoid body (EB)的培养状态和效果请参考图 1。本产品仅 10ng/ml 就可以有效维持 E14 小鼠胚胎干细胞的增殖和干性。

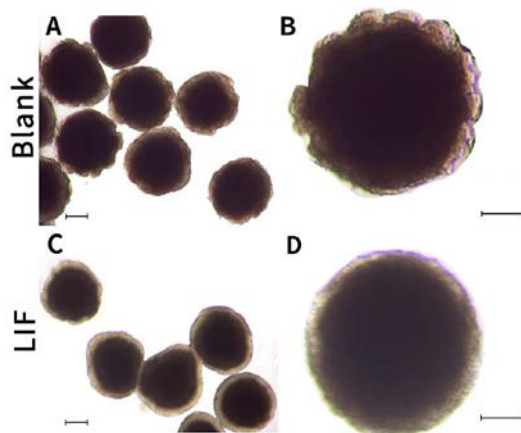


图1. 碧云天BeyoEmbryo™ Recombinant Mouse LIF (C0936)用于培养E14小鼠胚胎干细胞第四天时Embryoid body (EB)的效果图。使用本产品培养E14小鼠胚胎干细胞形成EB, 并观察EB形态和生长状况。如图所示, 空白对照组(Blank)培养第4天时, EB边缘有突起(图A), 细胞开始分化; 而加入最终浓度为10ng/ml本产品的实验组(LIF) EB边缘仍然整齐平滑, 显示本产品具有抑制E14小鼠胚胎干细胞分化及维持其增殖潜力和多能性的作用。图B和图D分别为图A和图C中单个EB放大的效果。比例尺: 100μm。实际检测效果会因细胞、检测仪器和实验条件的不同而存在差异, 本图仅供参考。

➤ 碧云天BeyoEmbryo™ Recombinant Mouse LIF蛋白经SDS-PAGE电泳检测蛋白纯度和分子量参考图2。

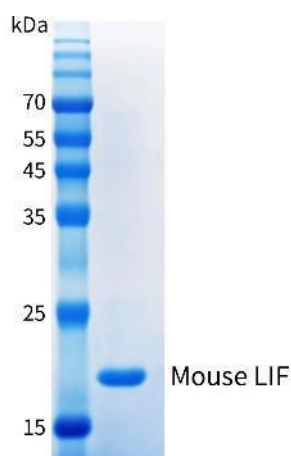


图2. 碧云天BeyoEmbryo™ Recombinant Mouse LIF (C0936)的SDS-PAGE电泳检测效果图。纯化后的Recombinant Mouse LIF蛋白经BeyoGel™ Plus PAGE预制胶(Tris-Gly, 12%, 15孔) (P0459)电泳, 并经BeyoBlue™考马斯亮蓝超快染色液(P0017F)染色。图中可见本产品为高纯度的重组蛋白。Marker为BeyoColor™彩色预染分子量标准(10-170kDa) (P0075/P0076/P0077)。实际检测结果可能会因样品和检测条件等的不同而存在差异, 图中数据仅供参考。

包装清单:

产品编号	产品名称	包装
C0936-10μg	BeyoEmbryo™ Recombinant Mouse LIF	100μl
C0936-50μg	BeyoEmbryo™ Recombinant Mouse LIF	500μl
C0936-200μg	BeyoEmbryo™ Recombinant Mouse LIF	2ml
-	说明书	1份

保存条件:

-80°C保存, 至少一年有效。

注意事项:

- 蛋白的每次冻融均会引起部分失活, 首次使用时须适当分装后-80°C冻存, 尽量避免反复冻融。
- 本产品经过滤除菌处理, 可以直接用于细胞培养实验, 使用过程中请注意无菌操作。
- 本产品仅限于专业人员的科学研究用, 不得用于临床诊断或治疗, 不得用于食品或药品, 不得存放于普通住宅内。
- 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

使用说明:

1. 收到产品后请立即按照说明书推荐的条件保存。首次打开管盖前, 建议在离心机中约8,000-12,000×g离心10-30秒, 使附着在管盖或管壁上的液体聚集于管底。

2. 具体的最佳工作浓度请自行参考相关文献，或者根据具体的实验目的，以及特定细胞和组织，通过实验进行摸索和优化。

参考文献：

1. Huyton T, Zhang JG, Luo CS, Lou MZ, Hilton DJ, et al. Proc Natl Acad Sci U S A. 2007. 104(31):12737-42.

相关产品：

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C0937-200µg	BeyoEmbryo™ Recombinant Mouse LIF (胚胎细胞培养级)	200µg
C0937-1mg	BeyoEmbryo™ Recombinant Mouse LIF (胚胎细胞培养级)	1mg
P6033-5µg	Recombinant Murine LIF	5µg
P6033-100µg	Recombinant Murine LIF	100µg
P6033-1mg	Recombinant Murine LIF	1mg
P6339-5µg	Recombinant Rat LIF	5µg
P6339-100µg	Recombinant Rat LIF	100µg
P6339-1mg	Recombinant Rat LIF	1mg
P5354-5µg	Recombinant Human LIF	5µg
P5354-100µg	Recombinant Human LIF	100µg
P5354-1mg	Recombinant Human LIF	1mg
PL695	Human LIF ELISA Kit	96次

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