



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
C0937-10μg	BeyoEmbryo™ Recombinant Mouse LIF (胚胎细胞培养级)	10μg
C0937-50μg	BeyoEmbryo™ Recombinant Mouse LIF (胚胎细胞培养级)	50μg
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

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; 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 white lyophilized (freeze-dried) powder
Formulation	Lyophilized from a 0.2μM filtered concentrated solution in 1X PBS, pH7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.
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。

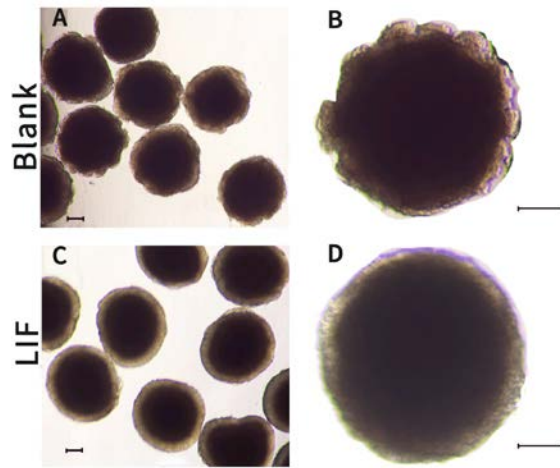


图 1. 碧云天 BeyoEmbryo™ Recombinant Mouse LIF (C0937)用于培养 E14 小鼠胚胎干细胞第四天时 Embryoid body (EB) 的效果图。使用本产品培养 E14 小鼠胚胎干细胞形成 EB, 并观察 EB 形态和生长状况。如图所示, 空白对照组(Blank)培养第 4 天时, EB 边缘有突起(图 A), 细胞开始分化; 而加入最终浓度为 10ng/ml 本产品的实验组(LIF) EB 边缘仍然整齐平滑, 显示本产品具有抑制 E14 小鼠胚胎干细胞分化及维持其增殖潜力和多能性的作用。图 B 和图 D 分别为图 A 和图 C 中单个 EB 放大的效果。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。

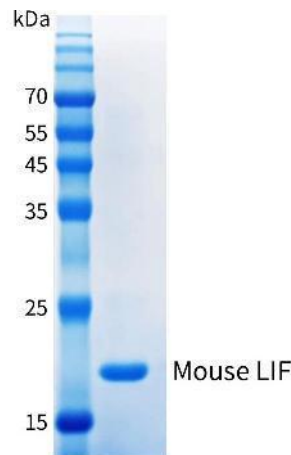


图2. 碧云天BeyoEmbryo™ Recombinant Mouse LIF (C0937)的SDS-PAGE电泳检测效果图。纯化后的Recombinant Mouse LIF蛋白经BeyoGel™ Plus PAGE预制胶(Tris-Gly, 12%, 15孔) (P0459)电泳, 并经BeyoBlue™考马斯亮蓝超快染色液(P0017F)染色。图中可见本产品为高纯度的重组蛋白。Marker为BeyoColor™彩色预染分子量标准(10-170kDa) (P0075/P0076/P0077)。实际检测结果可能会因样品和检测条件等的不同而存在差异, 图中数据仅供参考。

包装清单:

产品编号	产品名称	包装
C0937-10μg	BeyoEmbryo™ Recombinant Mouse LIF	10μg
C0937-50μg	BeyoEmbryo™ Recombinant Mouse LIF	50μg
C0937-200μg	BeyoEmbryo™ Recombinant Mouse LIF	200μg
C0937-1mg	BeyoEmbryo™ Recombinant Mouse LIF	200μg × 5
—	说明书	1 份

保存条件:

-20°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, 因此首次配制成相应浓度的储存液或工作液后(请根据产品简介中Reconstitution一栏的信息配制储存液), 须适当分装后-20°C或更低温度冻存, 尽量避免反复冻融。
- 本产品经过无菌处理, 溶解后可以直接用于细胞培养实验, 使用过程中请注意无菌操作。
- 由于有些塑料管壁对某些蛋白有较强的吸附作用, 溶液中的蛋白很容易粘附在管壁上, 并且粘附后的蛋白很难与管壁分离。而载体蛋白(Carrier protein, 如0.1% BSA等)的主要作用是预先封闭塑料管壁上的蛋白结合位点, 使细胞因子或重组蛋白不会粘附于管壁。所以一定要使用产品简介中Reconstitution一栏的信息配制储存液。

- 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。对于冻干粉产品，由于微量的蛋白在冻干过程中沉积在管内，形成很薄或不可见的蛋白层，所以首次打开管盖前，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蛋白冻干粉聚集于管底。
2. 请根据实验目的并按照产品简介中Reconstitution一栏中的信息配制储存液，并根据具体的实验要求配制工作液。大多数细胞因子或重组蛋白的冻干粉是非常容易溶解的，一般用移液枪的枪头轻吹几下或者轻轻摇晃瓶子，即可使细胞因子或重组蛋白完全溶解。请勿使用vortex剧烈振荡，以免蛋白变性而失活。
3. 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：

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
C0937-10µg	BeyoEmbryo™ Recombinant Mouse LIF (胚胎细胞培养级)	10µg
C0937-50µg	BeyoEmbryo™ Recombinant Mouse LIF (胚胎细胞培养级)	50µg
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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