



碧云天生物技术/Beyotime Biotechnology  
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## Recombinant Murine LIF

产品编号	产品名称	包装
P6033-5μg	Recombinant Murine LIF	5μg
P6033-25μg	Recombinant Murine LIF	25μg
P6033-100μg	Recombinant Murine LIF	100μg
P6033-1mg	Recombinant Murine LIF	1mg

### 产品简介:

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

About this protein	
Name	Recombinant Murine LIF (Recombinant Murine Leukemia inhibitory Factor; rMuLIF); 重组小鼠白血病抑制因子
Synonyms	CDF; D factor; DIA; differentiation inhibitory activity; differentiation stimulating factor; Differentiation-stimulating factor; Emfilermin; HILDacholinergic differentiation factor; leukemia inhibitory factor; leukemia inhibitory factor (cholinergic differentiation factor); Melanoma-derived LPL inhibitor; MLPLI
Purity	>98% by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The specific activity is determined by inducing differentiation of murine M1 myeloid leukemic cells. The minimum detectable concentration of rMuLIF in this assay is 0.01ng/ml. The specific activity of $>1.0 \times 10^8$ IU/mg, where 50 units is defined as the amount of rMuLIF required to induce differentiation in 50% of the M1 colonies in 1ml agar cultures.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2μM filtered concentrated solution in 20mM PB, pH7.4, with 0.02% TWEEN 20.
Endotoxin	Less than 1EU/μg of rMuLIF as determined by LAL method.
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 0.1-1.0mg/ml. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^\circ\text{C}$ . 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 trophoblast of the developing embryo, with its receptor LIFR expressed throughout the inner cell mass. 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.
Amino Acid Sequence	SPLPITPVNA TCAIRHPCHG NLMNQIKNQL AQLNGSANAL FISYYTAQGE PFPNNVEKLC APNMTDFPSF HNGNGTEKTKL VELYRMVAYL SASLTNITRD QKVLNPTAVS LQVKLNATID

VMRGLLSNVL CRLCNKYRVG HVDVPPVPDH SDKEAFQRKK LGCQLLGTYK QVISVVVQAF

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—	说明书	1份

#### 保存条件:

-20°C或更低温度保存,至少一年有效。由于蛋白的每次冻融均会引起部分失活,所以首次配制成相应浓度的储存液后(请根据产品简介中Reconstitution一栏的信息配制储存液),须分装后-20°C或更低温度冻存,以避免反复冻融。

#### 注意事项:

- 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。除非特别注明,碧云天相关产品均为冻干粉,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,所以在打开管盖前,我们建议在离心机中约8,000-12,000g离心10-30秒,使附着在管盖或管壁上的蛋白聚集于管底。
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。大多数细胞因子或重组蛋白的冻干粉是很容易溶解的,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,或者根据实验目的,以及特定细胞和动物,通过实验进行摸索和优化。

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