

pLenti-HNF4A-sgRNA

| 产品编号 | 产品名称 | 包装 |
|--------|--------------------|-----|
| L19800 | pLenti-HNF4A-sgRNA | 5μg |

产品简介:

- pLenti-HNF4A-sgRNA (HNF4A基因敲除质粒)是一种在动物细胞中可以同时表达Cas9、目的基因的sgRNA和puromycin抗性基因的质粒。用于在动物细胞中直接基于CRISPR/Cas9技术敲除目的基因，或者通过包装慢病毒后基于CRISPR/Cas9技术敲除目的基因。本质粒中sgRNA的有效性已经通过T7E1法的验证。
- 本质粒在细菌中为Amp抗性，全长约13,000bp。本质粒的关键图谱信息请参考图1。本质粒可直接转染细胞用于目的基因的CRISPR/Cas9敲除，以及通过puromycin筛选稳定细胞株；也可以与pMDLg、Rev及VSV-g共转HEK293T细胞进行重组慢病毒(lentivirus)的包装，然后再用于感染细胞或组织并进行目的基因的CRISPR/Cas9敲除。



图1. 表达sgRNA、Cas9和puromycin抗性的pLenti-sgRNA质粒关键图谱信息。

- 本质粒中的sgRNA基于碧云天研发的CRISPR/Cas9 sgRNA快速筛选和验证体系获得，sgRNA的有效性已经通过T7E1法验证。
- 本质粒用于实验时，建议同时选购无任何靶向的对照质粒pLenti-Control-sgRNA (L00011)或靶向GFP的对照质粒pLenti-GFP-sgRNA (L00013)。
- 碧云天同时提供基于CRISPR/Cas9技术的HNF4A基因敲除的质粒(L19800 pLenti-HNF4A-sgRNA)、慢病毒(L19801 HNF4A Knockout Lentivirus)、HEK293T细胞(L19802 HNF4A Knockout HEK293T Cells)、HEK293T敲除细胞的RIPA裂解液(L19803 HNF4A Knockout HEK293T RIPA Lysate)、HEK293T敲除细胞的Trizol裂解液(L19804 HNF4A Knockout HEK293T Trizol Lysate)等产品，具体请在碧云天网站查询或在本产品网点击相应产品。
- HNF4A基因的基本信息如下：

| Species | Gene Symbol | Gene ID | GenBank Accession | Transcript |
|---------|-------------|---------|-------------------|------------|
| Human | HNF4A | 3172 | BC137539 | NM_000457 |

| About the gene | |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Official Symbol | HNF4A |
| Previous Symbol | TCF14; MODY; MODY1 |
| Official Full Name | hepatocyte nuclear factor 4 alpha |
| Synonyms | NR2A1; HNF4 |
| Location | 20q13.12 |
| Gene Type | protein_coding |
| Uniprot ID | P41235 |
| Pathway/Library | Diabetes Related Genes Library |
| Gene Summary | The protein encoded by this gene is a nuclear transcription factor which binds DNA as a homodimer. The encoded protein controls the expression of several genes, including hepatocyte nuclear factor 1 alpha, a transcription factor which regulates the expression of several hepatic genes. This gene may play a role in development of the liver, kidney, and intestines. Mutations in this gene have been associated with monogenic autosomal dominant non-insulin-dependent diabetes mellitus type I. Alternative splicing of this gene results in multiple transcript variants encoding several different isoforms. |

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| L19800 | pLenti-HNF4A-sgRNA | 5μg |
| — | 说明书 | 1份 |

保存条件:

进行PCR扩增，然后进行T7EI酶切，具体请参考碧云天的T7 Endonuclease I (CRISPR等基因突变鉴定用) (D7080)或基因组编辑突变检测试剂盒(D0508)；也可以通过相应的抗体进行检测。

- b. 对于单克隆细胞，可通过PCR扩增出sgRNA靶向的基因片段后进行常规测序的方式进行验证，同时也可以使用相应的抗体进行检测。

相关产品：

| 产品编号 | 产品名称 | 包装 |
|--------------|----------------------------------------------|---------------|
| L00002-5μg | CRISPR/Cas9 Packaging Vectors Set A | 5μg/each |
| L00002-100μg | CRISPR/Cas9 Packaging Vectors Set A | 100μg/each |
| L00011-5μg | pLenti-Control-sgRNA | 5μg |
| L00011-100μg | pLenti-Control-sgRNA | 100μg |
| L00013-5μg | pLenti-GFP-sgRNA | 5μg |
| L00013-100μg | pLenti-GFP-sgRNA | 100μg |
| C0222 | 青霉素-链霉素溶液(100X) | 100ml |
| C0351-1ml | Polybrene (Hexadimethrine Bromide) | 1ml |
| C0351-50mg | Polybrene (Hexadimethrine Bromide) | 50mg |
| C0521 | Lipo293™转染试剂 | 0.5/1.5/7.5ml |
| C0526 | Lipo6000™转染试剂 | 0.5/1.5/7.5ml |
| C0533 | Lipo8000™转染试剂 | 0.5/1.5/7.5ml |
| D0378 | Stbl3甘油菌 | 200μl |
| ST551-10mg | Puromycin Dihydrochloride (嘌呤霉素) | 10mg/ml×1ml |
| ST551-50mg | Puromycin Dihydrochloride (嘌呤霉素) | 10mg/ml×5ml |
| ST551-250mg | Puromycin Dihydrochloride (嘌呤霉素) | 250mg |
| ST1380-500mg | Polybrene (≥94%, Reagent grade) | 500mg |
| ST1380-2g | Polybrene (≥94%, Reagent grade) | 2g |
| ST1380-10g | Polybrene (≥94%, Reagent grade) | 10g |
| FF345-10pcs | 针头滤器(0.45μm/28mm, PES, Sterile, Sartorius分装) | 10个/袋 |
| FF345T-10pcs | 针头滤器(0.45μm/28mm, PES, Sterile, 进口分装) | 10个/袋 |
| FF345-50pcs | 针头滤器(0.45μm/28mm, PES, Sterile, Sartorius原装) | 50个/盒 |
| FF365-10pcs | BeyoGold™针头滤器(0.45μm/33mm, PES, Sterile) | 10个/袋 |
| FF365-100pcs | BeyoGold™针头滤器(0.45μm/33mm, PES, Sterile) | 100个/盒 |
| FF375-10pcs | BeyoGold™针头滤器(0.45μm/13mm, PES, Sterile) | 10个/袋 |
| FF375-100pcs | BeyoGold™针头滤器(0.45μm/13mm, PES, Sterile) | 100个/盒 |
| FUF158-2pcs | 超滤管(15ml, 100kDa MWCO, PES, Sartorius分装) | 2个/袋 |
| FUF158-12pcs | 超滤管(15ml, 100kDa MWCO, PES, Sartorius分装) | 12个/袋 |

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