

## pLenti-PNPT1-sgRNA

| 产品编号   | 产品名称               | 包装  |
|--------|--------------------|-----|
| L29740 | pLenti-PNPT1-sgRNA | 5μg |

### 产品简介:

- pLenti-PNPT1-sgRNA (PNPT1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T7EI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T7EI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PNPT1基因敲除的质粒(L29740 pLenti-PNPT1-sgRNA)、慢病毒(L29741 PNPT1 Knockout Lentivirus)、HEK293T细胞(L29742 PNPT1 Knockout HEK293T Cells)、HEK293T敲除细胞的RIPA裂解液(L29743 PNPT1 Knockout HEK293T RIPA Lysate)、HEK293T敲除细胞的Trizol裂解液(L29744 PNPT1 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。
- PNPT1基因的基本信息如下：

| Species | Gene Symbol | Gene ID | GenBank Accession | Transcript |
|---------|-------------|---------|-------------------|------------|
| Human   | PNPT1       | 87178   | BC009057          | NM_033109  |

| About the gene     |   |
|--------------------|---|
| Official Symbol    | PNPT1   |
| Previous Symbol    | DFNB70  |
| Official Full Name | polyribonucleotide nucleotidyltransferase 1   |
| Synonyms           | PNPase; OLD35; old-35   |
| Location           | 2p16.1  |
| Gene Type          | protein_coding  |
| Uniprot ID         | Q8TCS8  |
| Pathway/Library    | others  |
| Gene Summary       | The protein encoded by this gene belongs to the evolutionary conserved polynucleotide phosphorylase family comprised of phosphate dependent 3'-to-5' exoribonucleases implicated in RNA processing and degradation. This enzyme is predominantly localized in the mitochondrial intermembrane space and is involved in import of RNA to mitochondria. Mutations in this gene have been associated with combined oxidative phosphorylation deficiency-13 and autosomal recessive nonsyndromic deafness-70. Related pseudogenes are found on chromosomes 3 and 7. |

### 包装清单:

| 产品编号   | 产品名称               | 包装  |
|--------|--------------------|-----|
| L29740 | pLenti-PNPT1-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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