

pLenti-PTPN2-sgRNA

| 产品编号 | 产品名称 | 包装 |
|--------|--------------------|-----|
| L18575 | pLenti-PTPN2-sgRNA | 5μg |

产品简介:

- pLenti-PTPN2-sgRNA (PTPN2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PTPN2基因敲除的质粒(L18575 pLenti-PTPN2-sgRNA)、慢病毒(L18576 PTPN2 Knockout Lentivirus)、HEK293T细胞(L18577 PTPN2 Knockout HEK293T Cells)、HEK293T敲除细胞的RIPA裂解液(L18578 PTPN2 Knockout HEK293T RIPA Lysate)、HEK293T敲除细胞的Trizol裂解液(L18579 PTPN2 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。
- PTPN2基因的基本信息如下：

| Species | Gene Symbol | Gene ID | GenBank Accession | Transcript |
|---------|-------------|---------|-------------------|------------------|
| Human | PTPN2 | 5771 | BC016727 | NM_002828 NM_080 |

| About the gene | |
|--------------------|--|
| Official Symbol | PTPN2 |
| Previous Symbol | PTPT |
| Official Full Name | protein tyrosine phosphatase, non-receptor type 2 |
| Synonyms | TCELLPTP; TC-PTP; TCPTP |
| Location | 18p11.21 |
| Gene Type | protein-coding gene |
| Uniprot ID | P17706 |
| Pathway/Library | Phosphatases Library |
| Gene Summary | The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. Members of the PTP family share a highly conserved catalytic motif, which is essential for the catalytic activity. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. Epidermal growth factor receptor and the adaptor protein Shc were reported to be substrates of this PTP, which suggested the roles in growth factor mediated cell signaling. Three alternatively spliced variants of this gene, which encode isoforms differing at their extreme C-termini, have been described. The different C-termini are thought to determine the substrate specificity, as well as the cellular localization of the isoforms. Two highly related but distinctly processed pseudogenes that localize to distinct chromosomes have been reported. |

包装清单:

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要后续可以通过将细胞稀释至2.5个/ml, 然后按照每孔200 μ l接种到96孔板中(每孔平均0.5个细胞), 筛选单克隆细胞株。

5. 基因编辑的鉴定:

- 对于多克隆细胞, 可以通过T7 Endonuclease I (T7EI)进行鉴定, 即提取细胞的基因组DNA, 在sgRNA序列两边设计引物进行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。
- 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 |
|--------------------|--|----------------------|
| L00002-5 μ g | CRISPR/Cas9 Packaging Vectors Set A | 5 μ g/each |
| L00002-100 μ g | CRISPR/Cas9 Packaging Vectors Set A | 100 μ g/each |
| L00011-5 μ g | pLenti-Control-sgRNA | 5 μ g |
| L00011-100 μ g | pLenti-Control-sgRNA | 100 μ g |
| L00013-5 μ g | pLenti-GFP-sgRNA | 5 μ g |
| L00013-100 μ g | pLenti-GFP-sgRNA | 100 μ g |
| 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 TM 转染试剂 | 0.5/1.5/7.5ml |
| C0526 | Lipo6000 TM 转染试剂 | 0.5/1.5/7.5ml |
| C0533 | Lipo8000 TM 转染试剂 | 0.5/1.5/7.5ml |
| D0378 | Stbl3甘油菌 | 200 μ l |
| ST551-10mg | Puromycin Dihydrochloride (嘌呤霉素) | 10mg/ml \times 1ml |
| ST551-50mg | Puromycin Dihydrochloride (嘌呤霉素) | 10mg/ml \times 5ml |
| ST551-250mg | Puromycin Dihydrochloride (嘌呤霉素) | 250mg |
| ST1380-500mg | Polybrene (\geq 94%, Reagent grade) | 500mg |
| ST1380-2g | Polybrene (\geq 94%, Reagent grade) | 2g |
| ST1380-10g | Polybrene (\geq 94%, Reagent grade) | 10g |
| FF345-10pcs | 针头滤器(0.45 μ m/28mm, PES, Sterile, Sartorius分装) | 10个/袋 |
| FF345T-10pcs | 针头滤器(0.45 μ m/28mm, PES, Sterile, 进口分装) | 10个/袋 |
| FF345-50pcs | 针头滤器(0.45 μ m/28mm, PES, Sterile, Sartorius原装) | 50个/盒 |
| FF365-10pcs | BeyoGold TM 针头滤器(0.45 μ m/33mm, PES, Sterile) | 10个/袋 |
| FF365-100pcs | BeyoGold TM 针头滤器(0.45 μ m/33mm, PES, Sterile) | 100个/盒 |
| FF375-10pcs | BeyoGold TM 针头滤器(0.45 μ m/13mm, PES, Sterile) | 10个/袋 |
| FF375-100pcs | BeyoGold TM 针头滤器(0.45 μ m/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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