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# pGL6 (报告基因质粒)

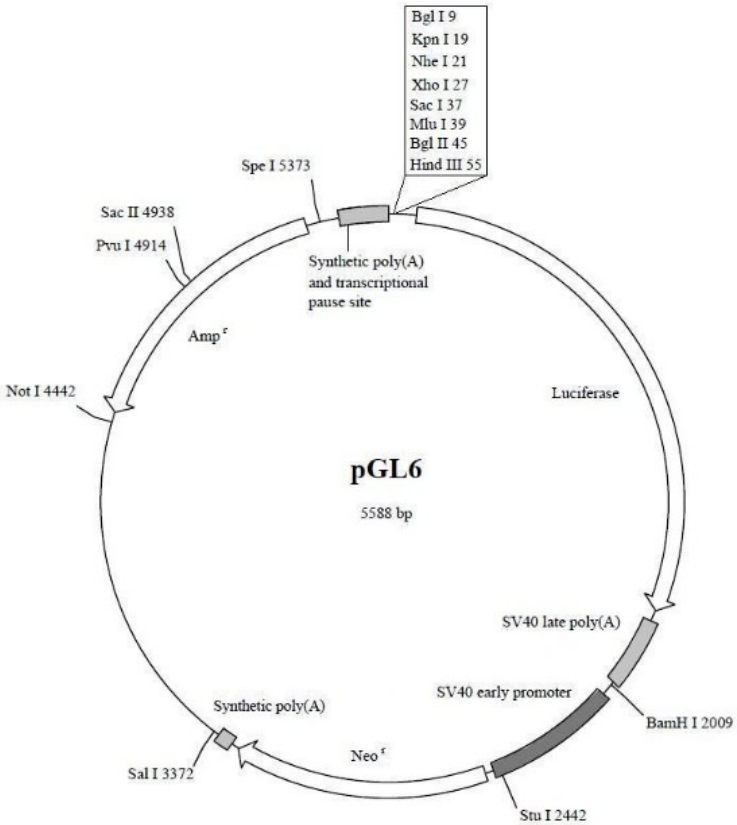
| 产品编号 | 产品名称 | 包装 |
|---|---|---|
| D2102-1μg | pGL6 (报告基因质粒) | 1μg |
| D2102-100μg | pGL6 (报告基因质粒) | 100μg |

## 产品简介：

- pGL6 (报告基因质粒)是碧云天自行研发的用于在哺乳动物细胞中进行萤火虫萤光素酶(firefly luciferase)报告基因检测的新一代质粒。该报告基因质粒比Promega公司的pGL3系列有了全面的改进，一方面对于luciferase的编码进行了改进，确保能更好地在哺乳动物细胞中进行表达，同时对整个质粒中所有可以被预测出的可能的转录因子结合位点全部进行了适当的突变处理，在保持原有功能不变的情况下，使各种转录因子在质粒上的非特异性结合降到最低。
- pGL6主要用于在其多克隆位点插入特定的启动子、增强子等调控元件研究该调控序列的基因转录调控活性。
- pGL6质粒的主要信息如下：

| | |
|---|---|
| Base pairs | 5588 |
| Multiple cloning region | 1-59 |
| luc2 reporter gene | 89-1741 |
| SV40 late poly(A) signal | 1776-1997 |
| SV40 early enhancer/promoter | 2045-2463 |
| Synthetic neomycin phosphotransferase (Neor) coding region | 2488-3282 |
| Synthetic poly(A) signal | 3307-3355 |
| Reporter Vector primer 4 (RVprimer4) binding region | 3422-3441 |
| ColE1-derived plasmid replication origin | 3679 |
| Synthetic Beta-lactamase (Ampr) coding region | 4470-5330 |
| Synthetic poly(A) signal/transcriptional pause site | 5435-5588 |
| Reporter Vector primer 3 (RVprimer3) binding region | 5537-5556 |

- pGL6质粒的图谱如下：



- pGL6的多克隆位点的详细图谱如下：

```
   BglI         KpnI  NheI   XhoI   SacI  MluI   BglII
 1 GGCCTAACTG GCCGGTACCG CTAGCCTCGA GGAGCTCACG CGTAGATCTG
   CCGGATTGAC CGGCCATGGC GATCGGAGCT CCTCGAGTGC GCATCTAGAC

    HindIII
51 CAGAAGCTTG GCAATCCGGT ACTGTTGGTA AAGCCACCAT GGAAGATGCC
   GTCTTCGAAC CGTTAGGCCA TGACAACCAT TTCGGTGGTA CCTTCTACGG
```

- pGL6中没有的酶切位点(Restriction enzymes that do not cut pGL6)包括：

| | | | | | | |
|---|---|---|---|---|---|---|
| Aat II | Afl II | Asc I | Ase I | Bsa I | BsaA I | BsiW I |
| BspM II | BssH II | Eco72 I | EcoR I | EcoR V | Nde I | Nru I |
| PflM I | Pme I | Pml I | Psp1406 I | PspA I | Rsr II | |
| Sma I | SnaB I | Spl I | Srf I | Tth111 I | | |

- pGL6中的单酶切位点(Restriction enzymes that cut pGL6 once)包括：

| | | | | | |
|---|---|---|---|---|---|
| Sfi I | GGCCN,NNN`NGGCC | 9 | Stu I | AGG\|CCT | 2442 |
| Bgl I | GCCN,NNN`NGGC | 9 | EcoN I | CCTNN`N,NNAGG | 2963 |
| Acc65 I | G`GTAC,C | 15 | BsiC I | TT`CG,AA | 3358 |
| Asp718 | G`GTAC,C | 15 | BstB I | TT`CG,AA | 3358 |
| Kpn I | G,GTAC`C | 19 | Sal I | G`TCGA,C | 3372 |
| Nhe I | G`CTAG,C | 21 | ApaL I | G`TGCA,C | 3936 |
| PaeR7 I | C`TCGA,G | 27 | HgiE II | ACCNNNNNNGGT | -1/134201 |
| Xho I | C`TCGA,G | 27 | Not I | GC`GGCC,GC | 4442 |
| Sac I | G,AGCT`C | 37 | BstX I | CCAN,NNNN`NTGG | 4466 |
| Mlu I | A`CGCG,T | 39 | BstE II | G`GTNAC,C | 4469 |
| Bgl II | A`GATC,T | 45 | Ahd I | GACNN,N`NNGTC | 4544 |
| Hind III | A`AGCT,T | 55 | Bsu36 I | CC`TNA,GG | 4900 |
| BsrG I | T`GTAC,A | 580 | Pvu I | CG,AT`CG | 4914 |
| Dra III | CAC,NNN`GTG | 1236 | Sac II | CC,GC`GG | 4938 |
| Gsu I | CTGGAG 21/19 | 1469 | Bst1107 I | GTA\|TAC | 5054 |
| Bpm I | CTGGAG 22/20 | 1470 | Xca I | GTA\|TAC | 5054 |
| Apo I | R`AATT,Y | 1852 | Spe I | A`CTAG,T | 5373 |
| Mun I | C`AATT,G | 1916 | BsmA I | GTCTC`/9 | 5385 |
| BamH I | G`GATC,C | 2009 | BsmB I | CGTCTC 7/11 | 5386 |

- pGL6质粒中推荐使用的测序引物序列如下：

```
RVprimer3 (5537-5556):
CTA GCA AAA TAG GCT GTC CC
```

- pGL6的全序列信息请参考碧云天的网站上该质粒的信息。

## 包装清单：

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| D2102-1μg | pGL6 (报告基因质粒) | 1μg |
| D2102-100μg | pGL6 (报告基因质粒) | 100μg |
| — | 说明书 | 1份 |

## 保存条件：

-20ºC保存。

## 注意事项：

- 本质粒未经碧云天书面许可不得用于任何商业用途，也不得移交给订货人所在实验室外的任何个人或单位。
- 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. 首次使用1μg包装的本产品时，请先取少量本质粒转化大肠杆菌，进行质粒小量、中量或大量抽提后再用于后续用途。抽提获得的质粒可以通过酶切电泳进行鉴定，或通过测序进行鉴定。
2. 100μg包装的本产品质粒浓度为0.1μg/μl， 共1ml。可以直接用于酶切或者转染细胞。
3. 用于插入调控序列：在多克隆位点选取适当的酶切位点，经酶切处理后连入适当的基因转录调控序列。pGL6也可以用作报

告基因检测时的阴性对照。

4. pGL6质粒以及以此质粒为模板构建的质粒可以用常规的细胞转染方法转染细胞。检测时可以采用碧云天的萤火虫萤光素酶报告基因检测试剂盒(RG005/RG006)或双萤光素酶报告基因检测试剂盒(RG027/RG028)。

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