

pp53-TA-luc (报告基因质粒)

产品编号	产品名称	包装
D2223-1μg	pp53-TA-luc (报告基因质粒)	1μg
D2223-100μg	pp53-TA-luc (报告基因质粒)	100μg

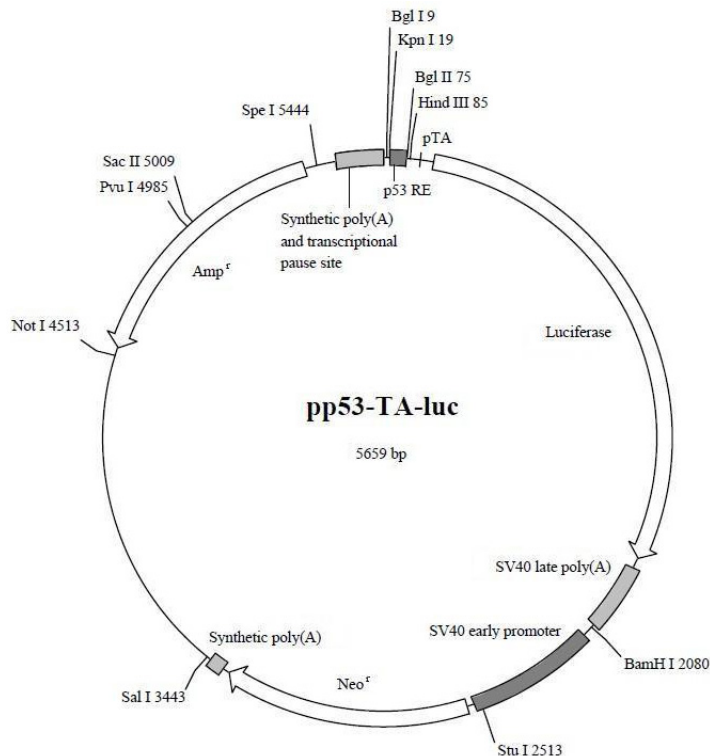
产品简介：

- pp53-TA-luc (报告基因质粒)是碧云天自行研发的用于检测p53转录活性水平的报告基因质粒。pp53-TA-luc是以碧云天的pGL6-TA质粒为模板，在其多克隆位点插入了多个p53结合位点，可以高灵敏度地检测p53的激活水平。
- pGL6-TA质粒是用于在哺乳动物细胞中进行萤火虫荧光素酶(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。

- pp53-TA-luc质粒的主要信息如下：

Base pairs	5659
p53 response element	20-73
Minimal TA promoter (pTA)	96-118
luc2 reporter gene	160-1812
SV40 late poly(A) signal	1847-2068
SV40 early enhancer/promoter	2116-2534
Synthetic neomycin phosphotransferase (Neor) coding region	2559-3353
Synthetic poly(A) signal	3378-3426
Reporter Vector primer 4 (RVprimer4) binding region	3493-3512
ColE1-derived plasmid replication origin	3750
Synthetic Beta-lactamase (Amp ^r) coding region	4541-5401
Synthetic poly(A) signal/transcriptional pause site	5506-5659
Reporter Vector primer 3 (RVprimer3) binding region	5608-5627

- pp53-TA-luc质粒的图谱如下：



➤ pp53-TA-luc的多克隆位点及p53 response element的详细图谱如下:

```

      BglI          KpnI          p53 response element
1  GGCCTAACTG  GCCGGTACCA  CGTTTGCCTT  GCCTGGACTT  GCCTGGCCTT
   CCGGATTGAC  CGGCCATGGT  GCAAACGGAA  CGGACCTGAA  CGGACCGGAA
  
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                        BglIII      HindIII
51 GCCTTGAGACA  TGCCCGGGCT  GTCAGATCTG  CAGAAGCTTA  GACACTAGAG
   CGGAACCTGT  ACGGGCCCGA  CAGTCTAGAC  GTCTTCAAT  CTGTGATCTC
  
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Minimal TA promoter
101 GGTATATAAT  GGAAGCTCGA  CTTCCAGCTT  GGCAATCCGG  TACTGTTGGT
    CCATATATTA  CCTTCGAGCT  GAAGGTCGAA  CCGTTAGGCC  ATGACAACCA
  
```

➤ pp53-TA-luc中没有的酶切位点(Restriction enzymes that do not cut pp53-TA-luc)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     Mlu I      Nde I      Nhe I      Nru I
PaeR7 I     PflM I     Pme I     Pml I     Psp1406 I  Rsr II     Sac I      SnaB I
Spl I       Tth111 I   Vsp I     Xcm I     Xho I     Xmn I
  
```

➤ pp53-TA-luc中的单酶切位点(Restriction enzymes that cut pp53-TA-luc once)包括:

```

Sfi I      GGCCN,NNN`NGGCC  9      EcoN I      CCTNN`N,NNAGG  3034
Bgl I      GCCN,NNN`NGGC   9      BsiC I      TT`CG,AA      3429
Acc65 I    G`GTAC,C        15     BstB I      TT`CG,AA      3429
Asp718    G`GTAC,C        15     Sal I      G`TCGA,C      3443
Kpn I     G,GTAC`C        19     Afl III    A`CRYG,T      3693
PspA I    C`CCGG,G        64     ApaL I     G`TGCA,C      4007
Xma I     C`CCGG,G        64     HgiE II    ACCNNNNNGGT  -1/134272
Srf I     GCCC|GGG        66     Not I      GC`GGCC,GC    4513
Sma I     CCC|GGG         66     BstX I     CCAN,NNNN`NTGG 4537
Bgl II    A`GATC,T        75     BstE II    G`GTNAC,C     4540
Hind III  A`AGCT,T        85     Ahd I      GACNN,N`NNGTC 4615
BsrG I    T`GTAC,A        651    Bsu36 I    CC`TNA,GG     4971
Dra III   CAC,NNN`GTG    1307   Pvu I     CG,AT`CG      4985
Gsu I     CTGGAG 21/19   1540   Sac II    CC,GC`GG      5009
Bpm I     CTGGAG 22/20   1541   Bst1107 I  GTA|TAC       5125
Apo I     R`AATT,Y       1923   Xca I     GTA|TAC       5125
Mun I     C`AATT,G       1987   Spe I     A`CTAG,T      5444
BamH I    G`GATC,C       2080   BsmA I    GTCTC`/9     5456
Stu I     AGG|CCT        2513   BsmB I    CGTCTC 7/11  5457
  
```

➤ pp53-TA-luc质粒中推荐使用的测序引物序列如下:

```

RVprimer3 (5608-5627):
CTA GCA AAA TAG GCT GTC CC
  
```

➤ pp53-TA-luc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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D2223-1μg	pp53-TA-luc (报告基因质粒)	1μg
D2223-100μg	pp53-TA-luc (报告基因质粒)	100μg
—	说明书	1份

保存条件:

-20°C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. pp53-TA-luc可以用常规的细胞转染方法转染细胞。检测时可采用碧云天的萤火虫荧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)。

4. 紫外照射、离子辐射等可以导致DNA损伤的作用或试剂可以激活p53，可以用作pp53-TA-luc报告基因检测时的阳性对照。

使用本产品的文献：

1. Ma D, Chen X, Zhang PY, Zhang H, Wei LJ, Hu S, Tang JZ, Zhou MT, Xie C, Ou R, Xu Y, Tang KF. Upregulation of the ALDOA/DNA-PK/p pathway by dietary restriction suppresses tumor growth. *Oncogene*. 2013 Feb 14; 32(7):1000-1010.
2. Yuan S, Han Y, Ma M, Rao K, Wang Z, Yang R, Liu Y, Zhou X. Aryl-phosphorus-containing flame retardants induce oxidative stress, the p53-dependent DNA damage response and mitochondrial impairment in A549 cells. *Environ Pollut*. 2013 Jul 15; 177:100-108.
3. Deng C, Zhang B, Zhang S, Duan C, Cao Y, Kang W, Yan H, Ding X, Zhou F, Wu L, Duan G, Shen S, Xu G, Zhang W, Chen M, Huang S, Zhang X, Lv Y, Ling T, Wang L, Zou X. Low nanomolar concentrations of Cucurbitacin-I induces G2/M phase arrest and apoptosis by perturbing redox homeostasis in gastric cancer cells in vitro and in vivo. *Cell Death Dis*. 2013 Feb 14; 4:e560.
4. Jin H, Lian N, Zhang F, Chen L, Chen Q, Lu C, Bian M, Shao J, Wu L, Zheng S. Activation of PPAR γ /P13K signaling is required for curcumin to induce hepatic stellate cell senescence. *Cell Death Dis*. 2013 Apr 1; 4:e560.
5. Yuan D, Pan Y, Zhang J, Shao C. Role of nuclear factor-kappaB and p53 in radioadaptive response in Chang live cells. *MUTAT RES-REV MUTAT*. 2013 Jun 15; 756-757:10-18.
6. Chenxi Xu, Jianjian Zhuang, Xiaobo Zhang. 2-(4-Hydroxybenzyl) Amino] Phenol (HBAP) Restores the Mutated p53 to the Level Similar to That of Wild-Type p53 Protein and Inhibits Breast Cancer Growth in vivo by Inducing Tumor Cells Apoptosis. *Front Cell Dev Biol*. 2013 Nov 14; 3:1-10.
7. Song ZB, Bao YL, Zhang Y, Mi XG, Wu P, Wu Y, Yu CL, Sun Y, Zheng LH, Huang YX, Liu B, Li YX. Testes-specific protease (TSP) promotes cell proliferation through the activation of the nuclear factor κ B (NF- κ B) signalling pathway. *Biochem J*. 2013 Jun 1; 453(1):101-108.
8. Li H, Sun L, Tang Z, Fu L, Xu Y, Li Z, Luo W, Qiu X, Wang E. Overexpression of TRIM21 Correlates with Tumor Progression in Non-Small Cell Lung Cancer. *PLoS One*. 2013 Jun 1; 8(6):e66000.
9. Dai L, Fu L, Liu D, Zhang K, Wu Y, Meng H, Zhang B, Guan X, Guo H, Bai Y. Novel and recurrent mutations of STK11 gene in six Chinese cases with Peutz-Jeghers syndrome. *DIGEST DIS SCI*. 2013 Aug 1; 58(8):1000-1004.
10. Zhang G, An Y, Lu X, Zhong H, Zhu Y, Wu Y, Ma F, Yang J, Liu Y, Zhou Z, Peng Y, Chen Z. A Novel Naphthalimide Compound Restores p53 Function in Non-small Cell Lung Cancer by Reorganizing the Bak1-Bcl-x1 Complex and Triggering Transcriptional Regulation. *J Biol Chem*. 2013 Feb 15; 288(7):5000-5008.
11. Gong Z, Yang Q, Zeng Z, Zhang W, Li X, Zu X, Deng H, Chen P, Liao Q, Xiang B, Zhou M, Li X, Li Y, Xiong W, Li G. An integrative transcriptomic analysis reveals p53-regulated miRNA, mRNA, and lncRNA networks in nasopharyngeal carcinoma. *TUMOR BIOL*. 2013 Mar 1; 34(3):1000-1010.
12. Jin H, Lian N, Zhang F, Bian M, Chen X, Zhang C, Jia Y, Lu C, Hao M, Yao S, Shao J, Wu L, Chen A, Zheng S. Inhibition of YAP signaling contributes to senescence of hepatic stellate cells induced by tetramethylpyrazine. *Eur J Pharm Sci*. 2013 Jan 1; 46(1):100-108.
13. Jin H, Lian N, Zhang F, Bian M, Chen X, Zhang C, Jia Y, Lu C, Hao M, Yao S, Shao J, Wu L, Chen A, Zheng S. Inhibition of YAP signaling contributes to senescence of hepatic stellate cells induced by tetramethylpyrazine. *Eur J Pharm Sci*. 2013 Jan 1; 46(1):100-108.
14. Zhou Y, Wang K, Zhou N, Huang T, Zhu J, Li J. Butein activates p53 in hepatocellular carcinoma cells via blocking MDM2-mediated ubiquitination. *ONCOTARGETS THER*. 2013 Apr 1; 6(4):1000-1010.
15. Jiang YL, Zhao ZY, Li BR, Yang F, Li J, Jin XW, Wang H, Yu ED, Sun SH, Ning SB. The altered activity of P13K signaling pathway by STK11 gene mutations and its cancer phenotype in Peutz-Jeghers syndrome. *BMC Med Genet*. 2013 Aug 1; 14:1000-1010.
16. Sui Y, Wu T, Li F, Wang F, Cai Y, Jin J. YY1/BCCIP Coordinately Regulates P53-Responsive Element (p53RE)-Mediated Transactivation of p53 Waf1/Cip1. *Int J Mol Sci*. 2013 Apr 1; 14(4):1000-1010.
17. Yu Z, Wang H, Fang Y, Lu L, Li M, Yan B, Nie Y, Teng C. Molecular chaperone HspB70 inhibited pancreatic cancer cell proliferation via activating p53 downstream gene RPRM, BAI1, and TSAP. *J Cell Biochem*. 2013 Mar 1; 108(3):1000-1010.
18. Ze Yu, Hao Wang, Yilin Fang, Liangliang Lu, Minghao Li, Bingru Yan, Yuzhe Nie, Chunbo Teng. Molecular chaperone HspB70 inhibited pancreatic cancer cell proliferation via activating p53 downstream gene RPRM, BAI1, and TSAP. *J Cell Biochem*. 2013 Mar 1; 108(3):1000-1010.
19. Xinping Gao, Qing Li, Guobin Chen, Haipeng He, Ying Ma. MAGEA3 promotes proliferation and suppresses apoptosis in cervical cancer cells by inhibiting the KAP1/p53 signaling pathway. *Am J Transl Res*. 2013 Jul 1; 5(7):1000-1010.
20. Huihan Ai, Hongshuang Qin, Jiawei Li, Chunxue Niu, Zhenbo Song, Yongli Bao, Luguoguo Sun, Lihua Zheng, Yuxin Li. Ethyl-p-methoxycinnamate enhances oct4 expression and reinforces pluripotency through the NF- κ B signaling pathway. *Biochem Pharmacol*. 2013 Jul 1; 86(1):1000-1010.

Version 2024.03.12