

pSTAT3-TA-luc (报告基因质粒)

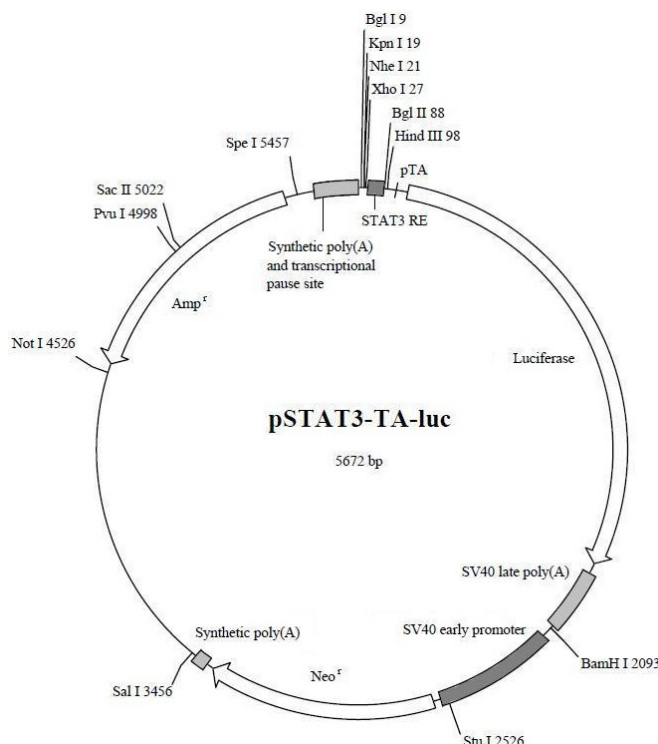
产品编号	产品名称	包装
D2259-1μg	pSTAT3-TA-luc (报告基因质粒)	1μg
D2259-100μg	pSTAT3-TA-luc (报告基因质粒)	100μg

产品简介：

- pSTAT3-TA-luc (报告基因质粒)是碧云天自行研发的用于检测STAT3(Signal transducer and activator of transcription 3)转录活性水平的报告基因质粒。pSTAT3-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STAT3结合位点，可以高灵敏度地检测STAT3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。
- pSTAT3-TA-luc质粒的主要信息如下：

Base pairs	5672
STAT3 response element	32-86
Minimal TA promoter (pTA)	109-131
luc2 reporter gene	173-1825
SV40 late poly(A) signal	1860-2081
SV40 early enhancer/promoter	2129-2547
Synthetic neomycin phosphotransferase (Neor) coding region	2572-3366
Synthetic poly(A) signal	3391-3439
Reporter Vector primer 4 (RVprimer4) binding region	3506-3525
ColE1-derived plasmid replication origin	3763
Synthetic Beta-lactamase (Amp ^r) coding region	4554-5414
Synthetic poly(A) signal/transcriptional pause site	5519-5672
Reporter Vector primer 3 (RVprimer3) binding region	5621-5640

- pSTAT3-TA-luc质粒的图谱如下：



➤ pSTAT3-TA-luc的多克隆位点及STAT3 response element的详细图谱如下:

BglI KpnI NheI XhoI STAT3 response element
 1 GGCCTAACTG GCCCGTACCG CTAGCCTCGA GTGCTTCCCG AACGTTGCTT
 CCGGATTGAC CGGCCATGGC GATCGGAGCT CACGAAGGGC TTGCAACGAA

BglII HindIII
 51 CCCGAACGTT GCTTCCCGAA CGTTGCTTCC GAACGTAGAT CTGCAGAAGC
 GGGCTTGCAA CGAAGGGCTT GCAACGAAG CTTGCATCTA GACGTCTTCG

Minimal TA promoter
 101 TTAGACACTA GAGGGTATA
 AATCTGTGAT CTCCCATAT

➤ pSTAT3-TA-luc中没有的酶切位点(Restriction enzymes that do not cut pSTAT3-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 Nru I PflM I
 Pme I Pml I PspA I Rsr II Sac I Sma I SnaB I Spl I
 Srf I Tth111 I Vsp I Xcm I Xma I Xmn I

➤ pSTAT3-TA-luc中的单酶切位点(Restriction enzymes that cut pSTAT3-TA-luc once)包括:

Sfi I GGCCN,NNN`NGGCC 9 BsiC I TT`CG,AA 3442
 Bgl I GCCN,NNN`NGGC 9 BstB I TT`CG,AA 3442
 Acc65 I G`GTAC,C 15 Sal I G`TCGA,C 3456
 Asp718 G`GTAC,C 15 Afl III A`CRYG,T 3706
 Kpn I G,GTAC`C 19 ApaL I G`TGCA,C 4020
 Nhe I G`CTAG,C 21 HgiE II ACCNNNNNNGGT -1/134285
 PaeR7 I C`TCGA,G 27 Not I GC`GGCC,GC 4526
 Xho I C`TCGA,G 27 BstX I CCAN,NNNN`NTGG 4550
 Bgl II A`GATC,T 88 BstE II G`GTNAC,C 4553
 Hind III A`AGCT,T 98 Ahd I GACNN,N`NNGTC 4628
 BsrG I T`GTAC,A 664 Bsu36 I CC`TNA,GG 4984
 Dra III CAC,NNN`GTG 1320 Pvu I CG,AT`CG 4998
 Gsu I CTGGAG 21/19 1553 Sac II CC,GC`GG 5022
 Bpm I CTGGAG 22/20 1554 Bst1107 I GTA|TAC 5138
 Apo I R`AATT,Y 1936 Xca I GTA|TAC 5138
 Mun I C`AATT,G 2000 Spe I A`CTAG,T 5457
 BamH I G`GATC,C 2093 BsmA I GTCTC`/9 5469
 Stu I AGG|CCT 2526 BsmB I CGTCTC 7/11 5470
 EcoN I CCTNN`N,NNAGG 3047

➤ pSTAT3-TA-luc质粒中推荐使用的测序引物序列如下:

RVprimer3 (5621-5640):
 CTA GCA AAA TAG GCT GTC CC

➤ pSTAT3-TA-luc的全序列信息请参考碧云天网站上该质粒的信息。

包装清单 :

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D2259-1μg	pSTAT3-TA-luc (报告基因质粒)	1μg
D2259-100μg	pSTAT3-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. pSTAT3-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)。
4. 可以激活STAT3的试剂，可以用作pSTAT3-TA-luc报告基因检测时的阳性对照。

使用本产品的文献：

1. 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) signaling pathway. *Biochem J*. 2013; 454(1):1-10.
2. Zha X, Hu Z, He S, Wang F, Shen H, Zhang H. TSC1/TSC2 inactivation inhibits AKT through mTORC1-dependent up-regulation of STAT3-PTEN cascade. *Cancer Lett*. 2013; 331(1-2):105-112.
3. Han L, Yue X, Zhou X, Lan FM, You G, Zhang W, Zhang KL, Zhang CZ, Cheng JQ, Yu SZ, Pu PY, Jiang T, Kang CS. MicroRNA-145 expression is regulated by β -catenin/STAT3 pathway and promotes glioma cell invasion by direct targeting RECK. *CNS Neurosci Ther*. 2013; 19(10):1103-1111.
4. Liao Q, Zeng Z, Guo X, Li X, Wei F, Zhang W, Li X, Chen P, Liang F, Xiang B, Ma J, Wu M, Tang H, Deng M, Zeng X, Tang K, Xiong W, Li G. LPLUNC suppresses IL-6-induced nasopharyngeal carcinoma cell proliferation via inhibiting the Stat3 activation. *Oncogene*. 2013; 32(16):1703-1712.
5. Wei H, Wang X, Zhang A, Du L, Zhou H. Identification of grass carp IL-6 receptor subunits: functional evidence for IL-6 signaling in teleost immunity. *Dev Comp Immunol*. 2013; 37(8):873-881.
6. Liu LJ, Leung KH, Chan DS, Wang YT, Ma DL, Leung CH. Identification of a natural product-like STAT3 dimerization inhibitor by structure-based virtual screening. *Cell Death Dis*. 2013; 4:e611.
7. Zhao Y, Yao J, Wu XP, Zhao L, Zhou YX, Zhang Y, You QD, Guo QL, Lu N. Wogonin suppresses human alveolar adenocarcinoma cell A549 migration in inflammatory microenvironment by modulating the IL-6/STAT3 signaling pathway. *Mol Carcinog*. 2013; 36(12):1203-1211.
8. Kong L, Li S, Yu X, Fang X, Xu A, Huang M, Wu X, Guo Y, Guo F, Xu J. Hepatitis C virus and its protein NS5B activate the cancer-related STAT3 pathway via the endoplasmic reticulum overload response. *Arch Virol*. 2013; 158(8):1453-1461.
9. Huang Y, Yang M, Hu H, Zhao X, Bao L, Huang D, Song L, Li Y. Mitochondrial GRIM-19 as a potential therapeutic target for STAT3-dependent carcinogenesis of gastric cancer. *Oncotarget*. 2013; 4(12):2201-2210.
10. Ai HH, Zhou ZL, Sun LG, Yang MT, Li W, Yu CL, Song ZB, Huang YX, Wu Y, Liu L, Yang XG, Zhao YQ, Bao YL, Li YX. (S)- β -methoxyl-dammarane- β , β -triol negatively regulates activation of STAT3 and ERK pathways and exhibits anti-cancer effects in HepG2 cells. *Apoptosis*. 2013; 18(11):1203-1213.
11. Zhang ZL, Jiang QC, Wang SR. Schisandrin A reverses doxorubicin-resistant human breast cancer cell line by the inhibition of p38 and Stat3 phosphorylation. *Breast Cancer*. 2013; 20(12):1203-1211.
12. Fan XY, He D, Sheng CB, Wang B, Wang LJ, Wu XQ, Xu L, Jiang JL, Li L, Chen ZN. Therapeutic anti-CD133 antibody sensitizes cells to chemoradiotherapy via targeting pancreatic cancer stem cells. *Am J Transl Res*. 2013; 5(12):2103-2111.
13. Chen X, Du J, Zhu Y, Zhang C, Sun H. Comprehensive analysis of lncRNA and mRNA expression profiles in macrophages activated by Actinidia eriantha polysaccharide. *Int J Biol Macromol*. 2013; 54(1):103-111.
14. Wang S, Yao Y, Wang X, Zheng G, Ouyang W, Chen W. HIF-1 α promotes hepatocellular carcinoma metastasis through up-regulation of TLR4-dependent FABP4. *Am J Cancer Res*. 2013; 5(12):2103-2111.
15. Huihan Ai, Hongshuang Qin, Jiawei Li, Chunxue Niu, Zhenbo Song, Yongli Bao, Luguang Sun, Lihua Zheng, Yuxin Li. Ethyl-p-methoxycinnamate enhances Oct4 expression and reinforces pluripotency through the NF- κ B signaling pathway. *Biochem Pharmacol*. 2013; 86(1):103-111.
16. Tao Pan, Fang Zhang, Fakai Li, Xingchun Gao, Zhikui Li, Xia Li, Xinling Ren. Shikonin blocks human lung adenocarcinoma cell migration and invasion in the inflammatory microenvironment via the IL-6/STAT3 signaling pathway. *Oncol Rep*. 2013; 30(1):103-111.

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