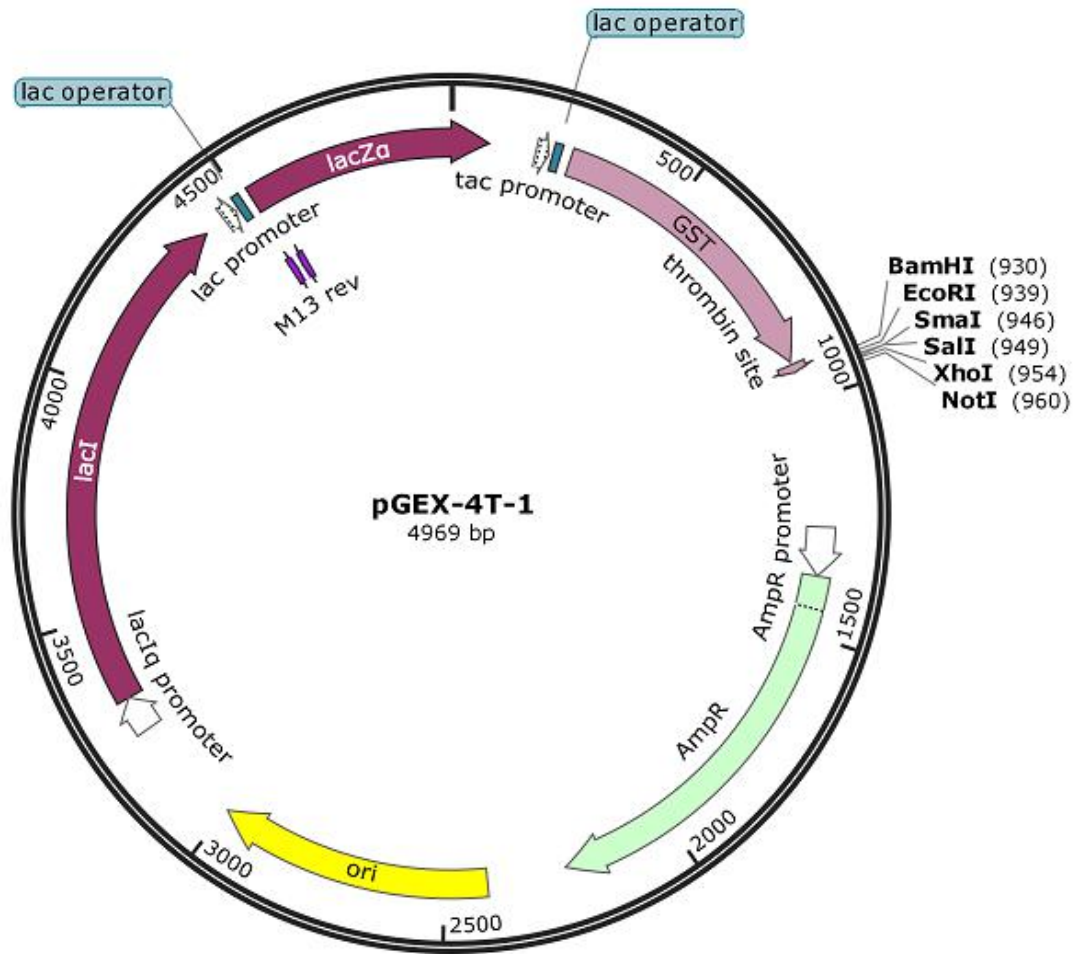


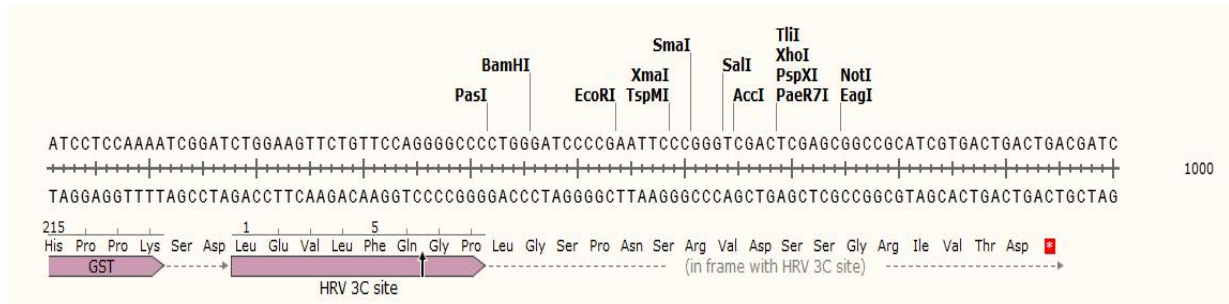
## pGEX-4T-1 Vector Information



载体名称: pGEX-4T-1  
 质粒类型: 大肠杆菌蛋白表达载体  
 表达水平: 高拷贝  
 启动子: tac promoter, lacI promoter  
 克隆方法: 多克隆位点, 限制性内切酶  
 克隆位点: MCS  
 载体大小: 4969bp  
 5' 测序引物及序列: PGEX-5: GGGCTGGCAAGCCACGTTTGGTG  
 3' 测序引物及序列: PGEX-3: CCGGGAGCTGCATGTGTCAGAGG  
 载体标签: --  
 载体抗性: Amp  
 筛选标记: --

产品目录号:  
 稳定性: 瞬时表达 Transient  
 组成型: 诱导型  
 病毒/非病毒: 非病毒  
 克隆菌株: DH5 α / Match-T1

MCS ☒:



LOCUS Exported 4969bp ds-DNA circular SYN 26-DEC-2017  
 DEFINITION pGEX-4T-1.  
 ACCESSION .  
 VERSION .  
 KEYWORDS pGEX-4T-1  
 SOURCE synthetic DNA construct  
 ORGANISM synthetic DNA construct  
 REFERENCE 1 (bases 1 to 4969)  
 AUTHORS .  
 TITLE Direct Submission  
 JOURNAL Exported Saturday, June 1, 2019 from SnapGene 3.2.1  
<http://www.snapgene.com>

FEATURES Location/Qualifiers  
 source 1..4969  
 /organism="synthetic DNA construct"  
 /mol\_type="other DNA"  
 promoter 183..211  
 /note="tac promoter"  
 /note="strong E. coli promoter; hybrid between the trp and lac UV5 promoters"  
 protein\_bind 219..235  
 /bound\_moiety="lac repressor encoded by lacI"  
 /note="lac operator"  
 /note="The lac repressor binds to the lac operator to inhibit transcription in E. coli. This inhibition can be relieved by adding lactose or isopropyl-beta-D-thiogalactopyranoside (IPTG)."  
 CDS 258..911  
 /codon\_start=1  
 /product="glutathione S-transferase from Schistosoma japonicum"  
 /note="GST"  
 /translation="MSPILGYWKIKGLVQPTRLLEYLEEKYEEHLYERDEGDKWRNKK FELGLEFPNLPYYIDGDVKLTQSMAIIRYIADKHNMLGGCPKERAEISMLEGAVLDIRY GVSRIAYSKDFETLKVDFLSKLPPEMLKMFEDRLCHKTYLNGDHVTHPDFMLYDALDVVL YMDPMCLDAFPKLVCFKKRIEAI PQIDKYLKSSKYIAWPLQGQWATFGGGDHPPK"

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CDS 918..935  
/codon\_start=1  
/product="thrombin recognition and cleavage site"  
/note="thrombin site"  
/translation="LVPRGS"

promoter 1272..1376  
/gene="bla"  
/note="AmpR promoter"

CDS 1377..2237  
/codon\_start=1  
/gene="bla"  
/product="beta-lactamase"  
/note="AmpR"  
/note="confers resistance to ampicillin, carbenicillin, and related antibiotics"  
/translation="MSIQHFRVALIPFFAAFCLPVFAHPETLVKVKDAEDQLGARVGYI  
ELDLNSGKILESFRPEERFPMSTFKVLLCGAVLSRVDAGQEQLGRRIRHYSQNDLVEYS  
PVTEKHLTDGMTVRELCSAAITMSDNTAANLLLTIGGPKELTAFLHNMGDHSVTRLDWR  
EPELNEAIPNDERDTTTPAAMATTLRKLTTGELLTLASRQQLIDWMEADKVAGPLLRSA  
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LIKHW"

rep\_origin 2408..2996  
/direction=RIGHT  
/note="ori"  
/note="high-copy-number ColE1/pMB1/pBR322/pUC origin of replication"

promoter 3240..3317  
/gene="lacI (mutant)"  
/note="lacIq promoter"  
/note="In the lacIq allele, a single base change in the promoter boosts expression of the lacI gene about 10-fold."

CDS 3318..4400  
/codon\_start=1  
/gene="lacI"  
/product="lac repressor"  
/note="lacI"  
/note="The lac repressor binds to the lac operator to inhibit transcription in E. coli. This inhibition can be relieved by adding lactose or isopropyl-beta-D-thiogalactopyranoside (IPTG)."  
/translation="MKPVTLYDVAEYAGVSYQTVSRVNVQASHVSAKTREKVEAAMAEL  
NYIPNRVAQQLAGKQSLIGVATSSALHAPSQIVAAIKSRADQLGASVVVSMVERSGV  
EACKAAVHNLLAQRVSLIINYPLDDQDAIAVEAACTNVPALFLDVSDQTPINSIIFSH  
EDGTRLGVEHLVALGHQIALLAGPLSSVSARLRLAGWHKYLTRNQIQPIAEREGDWSA  
MSGFQQTMQMLNEGIVPTAMLVANDQMALGAMRAITESGLRVGADISVVGYYDDTEDSSC  
YIPPLTTIKQDFRLLGQTSVDRLLQLSQGQAVKGNQLLPVSLVKRKTTLAPNTQTASPR  
ALADSLMQLARQVSRLESGQ"

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promoter 4449..4479  
 /note="lac promoter"  
 /note="promoter for the E. coli lac operon"  
 protein\_bind 4487..4503  
 /bound\_moiety="lac repressor encoded by lacI"  
 /note="lac operator"  
 /note="The lac repressor binds to the lac operator to inhibit transcription in E. coli. This inhibition can be relieved by adding lactose or isopropyl-beta-D-thiogalactopyranoside (IPTG)."  
 primer\_bind 4511..4527  
 /note="M13 rev"  
 /note="common sequencing primer, one of multiple similar variants"  
 CDS 4523..81  
 /codon\_start=1  
 /gene="lacZ fragment"  
 /product="LacZ-alpha fragment of beta-galactosidase"  
 /note="lacZ-alpha"  
 /translation="MTMITDSLAVVLQRRDWNPGVTQLNRLAAHPPFASWRNSEEART  
 DRPSQQLRSLNGEWRFAWFPAPEAVPESWLECDLPEADTVVVPNSWQMHHGYDAPIYTNV  
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 QPSEAVVWLCRS"  
 primer\_bind complement(4543..4559)  
 /note="M13 fwd"  
 /note="common sequencing primer, one of multiple similar variants"

ORIGIN

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61 GTATGGCTGT GCAGGTCGTA AATCACTGCA TAATTCGTGT CGCTCAAGGC GCACTCCCGT
121 TCTGGATAAT GTTTTTTCG CCGACATCAT AACGGTTCGT GCAAATATTC TGAAATGAGC
181 TGTTGACAAT TAATCATCGG CTCGTATAAT GTGTGGAATT GTGAGCGGAT AACAAATTCA
241 CACAGGAAAC AGTATTCATG TCCCCTATAC TAGGTTATTG GAAAATTAAG GGCCTTGTGC
301 AACCCACTCG ACTTCTTTTG GAATATCTTG AAGAAAAATA TGAAGAGCAT TTGTATGAGC
361 GCGATGAAGG TGATAAATGG CGAAACAAAA AGTTTGAATT GGGTTTGGAG TTTCCCAATC
421 TTCCTTATTA TATTGATGGT GATGTAAAT TAACACAGTC TATGGCCATC ATACGTTATA
481 TAGCTGACAA GCACAACATG TTGGGTGGTT GTCCAAAAGA GCGTGCAGAG ATTTCAATGC
541 TTGAAGGAGC GGTTTTGGAT ATTAGATACG GTGTTTCGAG AATTGCATAT AGTAAAGACT
601 TTGAAACTCT CAAAGTTGAT TTTCTTAGCA AGCTACCTGA AATGCTGAAA ATGTTCGAAG
661 ATCGTTTATG TCATAAAACA TATTTAAATG GTGATCATGT AACCCATCCT GACTTCATGT
721 TGATGACGC TCTTGATGTT GTTTTATACA TGGACCCAAT GTGCCTGGAT GCGTCCCAA
781 AATTAGTTTG TTTTAAAAAA CGTATTGAAG CTATCCACA AATTGATAAG TACTTGAAAT
841 CCAGCAAGTA TATAGCATGG CCTTGCAGG GCTGGCAAGC CAGTTTGGT GGTGGCGACC
901 ATCCTCCAAA ATCGGATCTG GTTCCGCGTG GATCCCCGGA ATCCCGGGT GACTCGAGC
961 GGCCGCATCG TGAAGTACTG ACGATCTGCC TCGCGGTTT CGGTGATGAC GGTGAAAACC
1021 TCTGACACAT GCAGCTCCCG GAGACGGTCA CAGCTTGTCT GTAAGCGGAT GCCGGGAGCA
1081 GACAAGCCCG TCAGGGCGCG TCAGCGGGTG TTGGCGGGTG TCGGGGCGCA GCCATGACCC
  
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1141 AGTCACGTAG CGATAGCGGA GTGTATAATT CTTGAAGACG AAAGGGCCTC GTGATACGCC  
1201 TATTTTTATA GGTAAATGTC ATGATAATAA TGGTTTCTTA GACGTCAGGT GGCACCTTTC  
1261 GGGGAAATGT GCGCGGAACC CCTATTTGTT TATTTTTCTA AATACATTCA AATATGTATC  
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1441 TTGCTCACCC AGAAACGCTG GTGAAAGTAA AAGATGCTGA AGATCAGTTG GGTGCACGAG  
1501 TGGGTACAT CGAACTGGAT CTCAACAGCG GTAAGATCCT TGAGAGTTTT CGCCCCGAAG  
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1621 TTGACGCCGG GCAAGAGCAA CTCGGTCGCC GCATACACTA TTCTCAGAAT GACTTGGTTG  
1681 AGTACTCACC AGTCACAGAA AAGCATCTTA CGGATGGCAT GACAGTAAGA GAATTATGCA  
1741 GTGCTGCCAT AACCATGAGT GATAACACTG CGGCCAACTT ACTTCTGACA ACGATCGGAG  
1801 GACCGAAGGA GCTAACCGCT TTTTGCACA ACATGGGGGA TCATGTAACT CGCCTTGATC  
1861 GTTGGGAACC GGAGCTGAAT GAAGCCATAC CAAACGACGA GCGTGACACC ACGATGCCTG  
1921 CAGCAATGGC AACAACGTTG CGCAAATAT TAACTGGCGA ACTACTTACT CTAGCTTCCC  
1981 GGCAACAATT AATAGACTGG ATGGAGGCGG ATAAAAGTTGC AGGACCACTT CTGCGCTCGG  
2041 CCCTTCCGGC TGGCTGGTTT ATTGCTGATA AATCTGGAGC CGGTGAGCGT GGGTCTCGCG  
2101 GTATCATTGC AGCACTGGGG CCAGATGGTA AGCCCTCCCG TATCGTAGTT ATCTACACGA  
2161 CGGGGAGTCA GGCAACTATG GATGAACGAA ATAGACAGAT CGCTGAGATA GGTGCCTCAC  
2221 TGATTAAGCA TTGGTAACTG TCAGACCAAG TTTACTCATA TATACTTTAG ATTGATTTAA  
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2401 GATCTTCTTG AGATCCTTTT TTTCTGCGG TAATCTGCTG CTTGCAAACA AAAAAACCAC  
2461 CGCTACCAGC GGTGGTTTGT TTGCCGATC AAGAGCTACC AACTCTTTTT CCGAAGGTAA  
2521 CTGGCTCAG CAGAGCGCAG ATACCAAATA CTGTCCTTCT AGTGTAGCCG TAGTTAGGCC  
2581 ACCACTTCAA GAACTCTGTA GCACCGCTA CATACTCGC TCTGCTAATC CTGTTACCAG  
2641 TGGCTGCTGC CAGTGGCGAT AAGTCGTGTC TTACCGGGT GGACTIONAAGA CGATAGTTAC  
2701 CGGATAAGGC GCAGCGGTCG GGCTGAACGG GGGGTTCTGT CACACAGCCC AGCTTGGAGC  
2761 GAACGACCTA CACCGAACTG AGATACCTAC AGCGTGAGCT ATGAGAAAGC GCCACGCTTC  
2821 CCGAAGGGAG AAAGGCGGAC AGGTATCCGG TAAGCGGCAG GGTCGGAACA GGAGAGCGCA  
2881 CGAGGGAGCT TCCAGGGGGA AACGCCTGGT ATCTTTATAG TCCTGTCCGG TTTCCGCCACC  
2941 TCTGACTTGA GCGTCGATTT TTGTGATGCT CGTCAGGGGG GCGGAGCCTA TGGAAAAACG  
3001 CCAGCAACGC GGCCTTTTTA CGGTTCTGTG CCTTTTGCTG GCCTTTTGCT CACATGTTCT  
3061 TTCCTGCGTT ATCCCTGAT TCTGTGGATA ACCGTATTAC CGCCTTTGAG TGAGCTGATA  
3121 CCGCTCGCCG CAGCCGAACG ACCGAGCGCA GCGAGTCAGT GAGCGAGGAA GCGGAAGAGC  
3181 GCCTGATGCG GTATTTTCTC CTTACGCATC TGTGCGGTAT TTCACACCGC ATAAATCCG  
3241 ACACCATCGA ATGGTGCAA ACCTTTCGCG GTATGGCATG ATAGCGCCCG GAAGAGAGTC  
3301 AATTCAGGGT GGTGAATGTG AAACCAGTAA CGTTATACGA TGTCGCAGAG TATGCCGGTG  
3361 TCTCTTATCA GACCGTTTCC CGCGTGGTGA ACCAGGCCAG CCACGTTTCT GCGAAAACGC  
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3481 AACTGGCGGG CAAACAGTCG TTGCTGATTG GCGTTGCCAC CTCCAGTCTG GCCCTGCACG  
3541 CGCCGTCGCA AATTGTCGCG GCGATTAAAT CTCGCGCCGA TCAACTGGGT GCCAGCGTGG  
3601 TGGTGTGCGT GGTAGAACGA AGCGGCGTCG AAGCCTGTAA AGCGGCGGTG CACAATCTTC  
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3961 AACGGGAAGG CGACTGGAGT GCCATGTCCG GTTTTCAACA AACCATGCAA ATGCTGAATG  
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4081 GCGCCATTAC CGAGTCCGGG CTGCGCGTTG GTGCGGATAT CTCGGTAGTG GGATACGACG  
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4201 TGCTGGGGCA AACCAGCGTG GACCGCTTG CCAACTCTC TCAGGGCCAG GCGGTGAAGG  
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4381 GACTGGAAAG CGGGCAGTGA GCGCAACGCA ATTAATGTAA GTTAGCTCAC TCATTAGGCA  
4441 CCCAGGCTT TACACTTAT GCTTCCGGCT CGTATGTTGT GTGGAATTGT GAGCGGATAA  
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4621 TTTCGCCAGC TGGCGTAATA GCGAAGAGGC CCGCACCGAT CGCCCTTCCC AACAGTTGCG  
4681 CAGCCTGAAT GCGGAATGGC GCTTTGCCTG GTTCCGGCA CCAGAAGCGG TGCCGAAAG  
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4861 GTTTGTCCC ACGGAGAATC CGACGGGTTG TTACTCGCTC ACATTTAATG TTGATGAAAG  
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