

## pYES2

### 载体基本信息

出品公司: Invitrogen

载体名称: pYES2

质粒类型: 酿酒酵母蛋白表达载体

表达水平: 高拷贝

诱导方法: 半乳糖

启动子: GAL1

克隆方法: 多克隆位点, 限制性内切酶

载体大小: 5857 bp

5' 测序引物及序列: T7: TAATACGACTCACTATAGGG

3' 测序引物及序列: CYC1 Terminator: GTGACATAACTAATTACATGATG

载体抗性: 氨苄

筛选标记: URA3

备注: 利用半乳糖诱导蛋白在酿酒酵母中表达。

稳定性: 稳定 Stable

组成型/诱导型: 诱导型

病毒/非病毒: 非病毒

### 使用说明

1. 建议收到质粒后请先转化感受态 (克隆菌株), 再挑选单菌落重新提取后使用。
2. 转化前请准确查找该质粒对应的抗生素、抗生素浓度、感受态 (克隆菌株) 和培养温度。
3. 如有必要请测序后使用。

### 载体质粒图谱和多克隆位点信息

#### Comments for pYES2: 5856 nucleotides

GAL1 promoter: bases 1-451

T7 promoter/priming site: bases 475-494

Multiple cloning site: bases 501-600

CYC1 transcription terminator: bases 608-856

pUC origin: bases 1038-1711

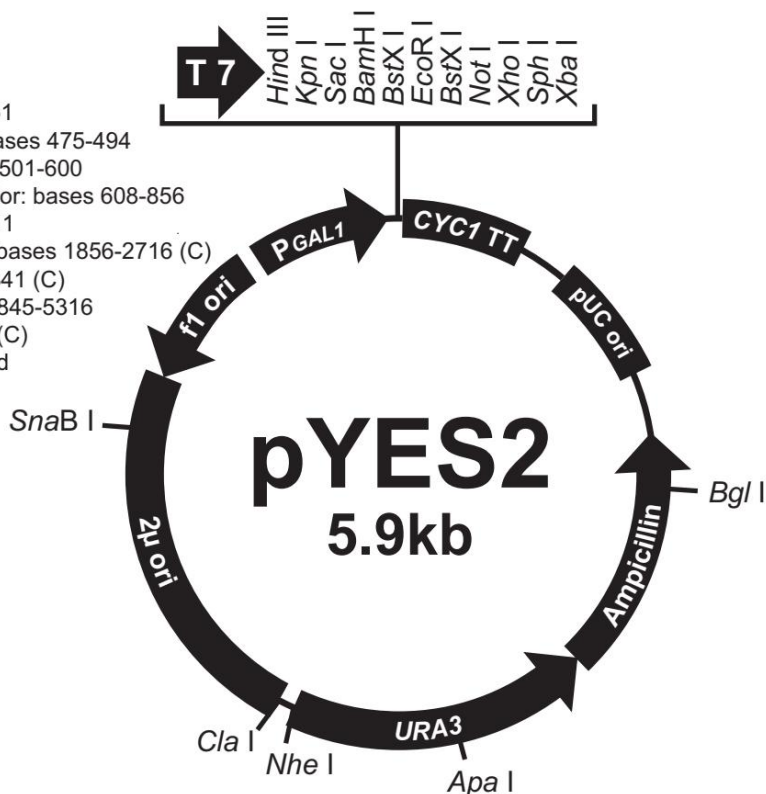
Ampicillin resistance gene: bases 1856-2716 (C)

URA3 gene: bases 2734-3841 (C)

2 micron ( $\mu$ ) origin: bases 3845-5316

f1 origin: bases 5384-5839 (C)

(C) = complementary strand



## 载体简介

pYES2 的是一个 5.9 kb 的载体，设计用来在酿酒酵母（*Saccharomyces cerevisiae*）中诱导表达重组蛋白。载体的特点在于基因插入载体的构建简单，以及能够使用原养型尿嘧啶进行转化株的筛选。

该载体包含以下元素：

1. 酵母 GAL1 启动子，能够在酿酒酵母中被半乳糖高水平的诱导蛋白表达目的蛋白，同时能够被葡萄糖抑制表达
2. 多克隆位点可以使用的很多限制酶切位点，便于基因插入。
3. CYC1 终止子能够有效终止 mRNA 的转录。
4. 能够利用 URA3 基因筛选带有 *ura3* 基因型的酵母宿主菌株转化子。
5. 氨苄抗性基因能够方便在大肠杆菌中的进行载体筛选。

## 载体序列：

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1 GGCCGCAAAT TAAAGCCTTC GAGCGTCCCA AAACCTTCTC AAGCAAGGTT TTCAGTATAA
61 TGTTACATGC GTACACGCGT CTGTACAGAA AAAAAAGAAA AATTGAAAT ATAAATAACG
121 TTCTTAATAC TAACATAACT ATAAAAAAT AAATAGGGAC CTAGACTTCA GGTTGTCTAA
181 CTCCTTCCTT TTCGGTTAGA GCGGATGTGG GGGGAGGGCG TGAATGTAAG CGTGACATAA
241 CTAATTACAT GATGCGGCCC TCTAGATGCA TGCTCGAGCG GCCGCCAGTG TGATGGATAT
301 CTGCAGAATT CCAGCACACT GGCGGCCGTT ACTAGTGGAT CCGAGCTCGG TACCAAGCTT
361 AATATTCCCT ATAGTGAGTC GTATTACAGC TGCTAGTAGT CCGATCCGGG GTTTTTTCTC
421 CTTGACGTAA AAGTATAGAG GTATATTAAC AATTTTTTGT TGATACTTTT ATTACATTG
481 AATAAGAAGT AATACAAACC GAAAATGTTG AAAGTATTAG TTAAAGTGGT TAATGCAGTT
541 TTTGCATTAA TATATCTGTT AATAGATCAA AAATCATCGC TTCGCTGATT AATTACCCCA
601 GAAATAAGGC TAAAAAATA ATCGCATTAT CATCCTATGG TTGTTAATTT GATTCGTTCA
661 TTTGAAGGTT TGTGGGGCCA GGTTACTGCC AATTTTTCTT CTCATAACC ATAAAAGCTA
721 GTATTGTAGA ATCTTTATTG TTCGGAGCAG TGCGGCGCGA GGCACATCTG CGTTTCAGGA
781 ACGCGACCGG TGAGGACGAG GACGCACGGA GGAGAGTCTT CCTTCGGAGG GCTGTCACCC
841 GCTCGGCGGC TTCTAATCCG TACTAGTGGA TCATCCCCAC GCGCCCTGTA GCGCCCCATT
901 AAGCGCGGCG GGTGTGGTGG TTACGCCAG CGTGACCCCT AACTTCCCA CCGCCCTAGC
961 CCCCCTCCTT TTCGCTTCTT TCCCTTCCTT TCTCGCCACG TTCGCCGGCT TTCCCCGTCA
1021 AGCTCTAAAT GGGGGCATCC GTTTACCCTT CCGATTACT GCTTACGGC ACCTCGACCC
1081 CAAAAAATT GATTAGGGTG ATGGTTCACG TAGTGGGCCA TCGCCCTGAT AGACCCTTTT
1141 TCGCCCTTTG ACGTTGGAGT CCACGTTCTT TAATAGTGGA CTCTGTTGG AAAGTGAAC
1201 AACACTCAAC CCTATCTCGG TCTATCTTT TGATTATAA GGGATTTTGC CGATTTCGGG
1261 CTATTCGTTA AAAAATGAGC TGATTAAACA AAAATTAAAC GCGAATTTTA ACAAATATT
1321 AACGTTTACA ATTTAAATAT TTGCTTATAC AATCTTCCTG TTTTGGGGC TTTTCTGATT
1381 ATCAACCGGG GTGGAGCTTC CCATTGCGAA TACCGCTTCC ACAAACATTG CTCAAAAGTA
1441 TCTCTTTGCT ATATATCTCT GTGCTATATC CCTATATAAC CTACCCATCC ACCTTTCGCT
1501 CCTTGAACCT GCATCTAAAC TCGACCTCTA CATTTTTTAT GTTTATCTCT AGTATTACTC
1561 TTTAGACAAA AAAATTGTAG TAAGAACTAT TCATAGAGTG AATCGAAAAC AATACGAAAA
1621 TGTAACACATT TCCTATACGT AGTATATAGA GACAAAATAG AAGAAACCGT TCATAATTTT
1681 CTGACCAATG AAGAATCATC AACGCTATCA CTTTCTGTTC ACAAAGTATG CGCAATCCAC
1741 ATCGGTATAG AATATAATCG GGGATGCCTT TATCTTGAAA AAATGCACCC GCAGCTTCGC
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1801 TAGTAATCAG TAAACGCGGG AAGTGGAGTC AGGCTTTTTT TATGGAAGAG AAAATAGACA  
1861 CCAAAGTAGC CTTCTTCTAA CCTTAACGGA CCTACAGTGC AAAAAGTTAT CAAGAGACTG  
1921 CATTATAGAG CGCACAAAGG AGAAAAAAG TAATCTAAGA TGCTTTGTTA GAAAAATAGC  
1981 GCTCTCGGGA TGCATTTTGT TAGAACAAAA AAGAAGTATA GATTCTTTGT TGGTAAAATA  
2041 GCGCTCTCGC GTTGCAATTC TGTCTGTAA AAATGCAGCT CAGATTCCTT GTTTGAAAAA  
2101 TTAGCGCTCT CGTCGCGTTG CATTTTTGTT TTACAAAAAT GAAGCACAGA TTCTTCGTTG  
2161 GTAAAATAGC GCTTTCGCGT TGCATTTCTG TTCTGTAAAA ATGCAGCTCA GATTCTTTGT  
2221 TTGAAAAATT AGCGCTCTCG CGTTGCATTT TTGTTCTACA AAATGAAGCA CAGATGCTTC  
2281 GTTAACAAAG ATATGCTATT GAAGTGCAAG ATGGAAACGC AGAAAATGAA CCGGGGATGC  
2341 GACGTGCAAG ATTACCTATG CAATAGATGC AATAGTTTCT CCAGGAACCG AAATACATAC  
2401 ATTGTCTTCC GTAAAGCGCT AGACTATATA TTATTATACA GGTCAAATA TACTATCTGT  
2461 TTCAGGGAAA ACTCCCAGGT TCGGATGTTT AAAATTCAAT GATGGGTAAC AAGTACGATC  
2521 GTAAATCTGT AAAACAGTTT GTCGGATATT AGGCTGTATC TCCTCAAAGC GTATTCGAAT  
2581 ATCATTGAGA AGCTGCAGCG TCACATCGGA TAATAATGAT GGCAGCCATT GTAGAAGTGC  
2641 CTTTTGCATT TCTAGTCTCT TTCTCGGTCT AGCTAGTTTT ACTACATCGC GAAGATAGAA  
2701 TCTTAGATCA CACTGCCTTT GCTGAGCTGG ATCAATAGAG TAACAAAAGA GTGGTAAGGC  
2761 CTCGTAAAG GACAAGGACC TGAGCGGAAG TGTATCGTAC AGTAGACGGA GTATCTAGTA  
2821 TAGTCTATAG TCCGTGGAAT TAATTCTCAT CTTTGACAGC TTATCATCGA TAAGCTAGCT  
2881 TTTCAATTCA ATTCATCATT TTTTTTTTAT TCTTTTTTTT GATTCGGTT TCTTTGAAAT  
2941 TTTTTTGATT CGGTAATCTC CGAACAGAAG GAAGAACGAA GGAAGGAGCA CAGACTTAGA  
3001 TTGGTATATA TACGCATATG TAGTGTTGAA GAAACATGAA ATTGCCCAGT ATTCTTAACC  
3061 CAACTGCACA GAACAAAAAC CTGCAGGAAA CGAAGATAAA TCATGTCGAA AGCTACATAT  
3121 AAGGAACGTG CTGCTACTCA TCCTAGTCCT GTTGCTGCCA AGCTATTTAA TATCATGCAC  
3181 GAAAAGCAAA CAACTTGTG TGCTTCATTG GATGTTTCGT CCACCAAGGA ATTACTGGAG  
3241 TTAGTTGAAG CATTAGGTCC CAAAATTTGT TACTAAAAA CACATGTGGA TATCTTGACT  
3301 GATTTTTCCA TGGAGGGCAC AGTTAAGCCG CTAAAGGCAT TATCCGCCAA GTACAATTTT  
3361 TACTCTTCG AAGACAGAAA ATTTGCTGAC ATTGGTAATA CAGTCAAATT GCAGTACTCT  
3421 GCGGGTGTAT ACAGAATAGC AGAATGGGCA GACATTACGA ATGCACACGG TGTGGTGGGC  
3481 CCAGGTATTG TTAGCGGTTT GAAGCAGGCG GCAGAAGAAG TAACAAAGGA ACCTAGAGGC  
3541 CTTTTGATGT TAGCAGAATT GTCATGCAAG GGCTCCCTAT CACTGGAGA ATATACTAAG  
3601 GGTACTGTTG ACATTGCGAA GAGCGACAAA GATTTTGTTA TCGGCTTTAT TGCTCAAAGA  
3661 GACATGGGTG GAAGAGATGA AGGTTACGAT TGGTTGATTA TGACACCCGG TGTGGGTTTA  
3721 GATGACAAGG GAGACGCATT GGGTCAACAG TATAGAACCG TGGATGATGT GGTCTCTACA  
3781 GGATCTGACA TTATTATTGT TGGAAGAGGA CTATTTGCAA AGGGAAGGGA TGCTAAGGTA  
3841 GAGGGTGAAC GTTACAGAAA AGCAGGCTGG GAAGCATATT TGAGAAGATG CGGCCAGCAA  
3901 AACTAAAAAA CTGTATTATA AGTAAATGCA TGTATACTAA ACTCACAAAT TAGAGCTTCA  
3961 ATTTAATTAT ATCAGTTATT ACCCATTGAA AAAGGAAGAG TATGAGTATT CAACATTTCC  
4021 GTGTCGCCCT TATCCCTTT TTTGCGGCAT TTTGCCTTCC TGTTTTTGCT CACCCAGAAA  
4081 CGCTGGTGAA AGTAAAAGAT GCTGAAGATC AGTTGGGTGC ACGAGTGGGT TACATCGAAC  
4141 TGGATCTCAA CAGCGGTAAG ATCCTTGAGA GTTTTCGCCC CGAAGAACGT TTTCCAATGA  
4201 TGAGCACTTT TAAAGTTCTG CTATGTGATA CACTATTATC CCGTATTGAC GCCGGGCAAG  
4261 AGCAACTCGG TCGCCGCATA CACTATTCTC AGAATGACTT GGTTGAGTAC TCACCAGTCA

4321 CAGAAAAGCA TCTTACGGAT GGCATGACAG TAAGAGAATT ATGCAGTGCT GCCATAACCA  
4381 TGAGTGATAA CACTGCGGCC AACTTACTTC TGACAACGAT CGGAGGACCG AAGGAGCTAA  
4441 CCGCTTTTTT GCACAACATG GGGGATCATG TAACTCGCCT TGATCGTTGG GAACCGGAGC  
4501 TGAATGAAGC CATAACAAAC GACGAGAGTG ACACCACGAT GCCTGTAGCA ATGCCAACAA  
4561 CGTTGCGCAA ACTATTAAC TGGCGAAGTAC TTAATCTAGC TTCCCGGCAA CAATTAATAG  
4621 ACTGAATGGA GCGGATAAA GTTGCAGGAC CACTTCTGCG CTCGGCCCTT CCGGCTGGCT  
4681 GGTATTATGC TGATAAATCT GGAGCCGGTG AGCGTGGGTC TCGCGGTATC ATTGCAGCAC  
4741 TGGGGCCAGA TGGTAAGCGC TCCCGTATCG TAGTTATCTA CACGACGGGG AGTCAGGCAA  
4801 CTATGGATGA ACGAAATAGA CAGATCGCTG AGATAGGTGC CTCACTGATT AAGCATTGGT  
4861 AACTGTCAGA CCAAGTTTAC TCATATATAC TTTAGATTGA TTAAAACTT CATTTTTAAT  
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5041 CTTTTTTTCT GCGCGTAATC TGCTGCTTGC AAACAAAAAA ACCACCGCTA CCAGCGGTGG  
5101 TTTGTTTGCC GGATCAAGAG CTACCAACTC TTTTCCGAA GGTAAGTGGC TTCAGCAGAG  
5161 CGCAGATACC AAATACTGTC CTTCTAGTGT AGCCGTAGTT AGGCCACCAC TTCAAGAACT  
5221 CTGTAGCACC GCCTACATAC CTCGCTCTGC TAATCCTGTT ACCAGTGGCT GCTGCCAGTG  
5281 GCGATAAGTC GTGTCTTACC GGGTTGGACT CAAGACGATA GTTACCGGAT AAGGCGCAGC  
5341 GGTCGGGCTG AACGGGGGGT TCGTGACAC AGCCCAGCTT GGAGCGAACG ACCTACACCG  
5401 AACTGAGATA CCTACAGCGT GAGCTATGAG AAAGCGCCAC GCTTCCCGAA GGGAGAAAGG  
5461 CGGACAGGTA TCCGTAAGC GGCAGGGTCG GAACAGGAGA GCGCACGAGG GAGCTTCCAG  
5521 GGGGAAACGC CTGGTATCTT TATAGTCCTG TCGGGTTTCG CCACCTCTGA CTTGAGCGTC  
5581 GATTTTTGTG ATGCTCGTCA GGGGGGCGGA GCCTATGGAA AAACGCCAGC AACGCGGCCT  
5641 TTTTACGGTT CCTGGGCTTT TGCTGGCCTT TTGCTCACAT GTTCTTTCCT GCGTTATCCC  
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5761 GAACGACCGA GCGCAGCGAG TCAGTGAGCG AGGAAGCGGA AGAGCGCCCA ATACGCAAAC  
5821 CGCCTCTCCC CGCGCGTTGG CCGATTCATT AATGCAG