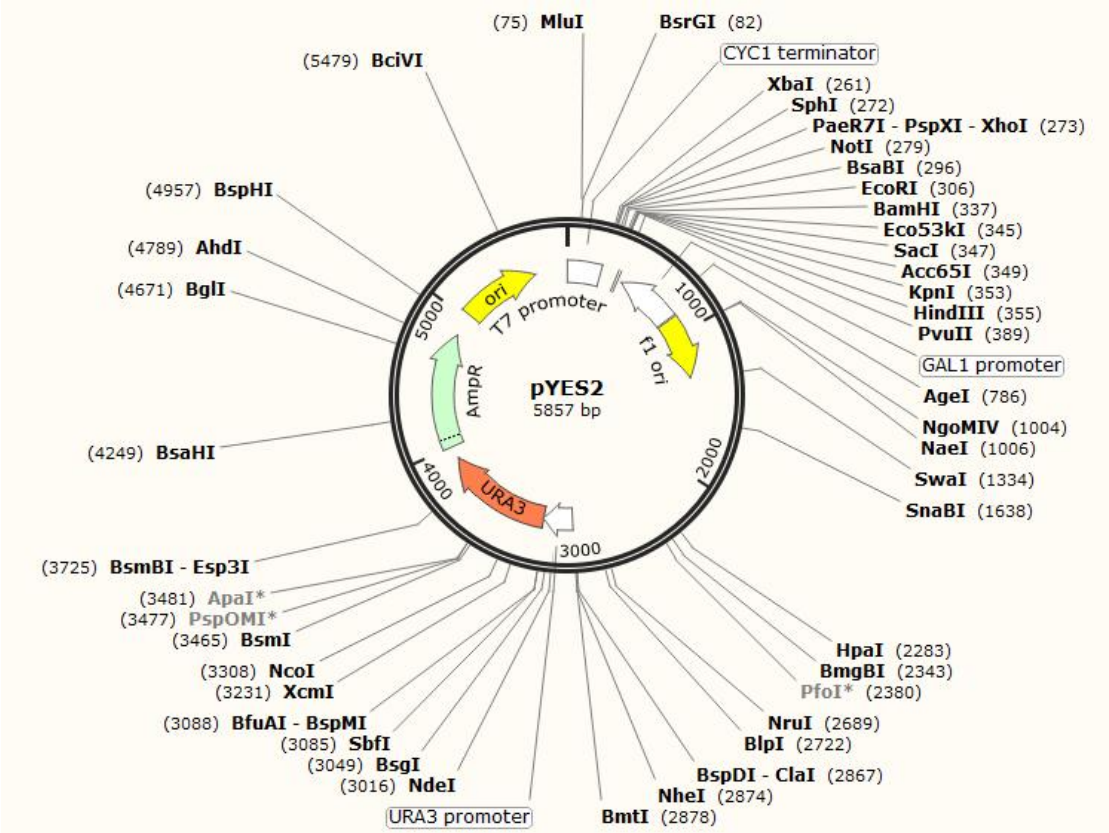
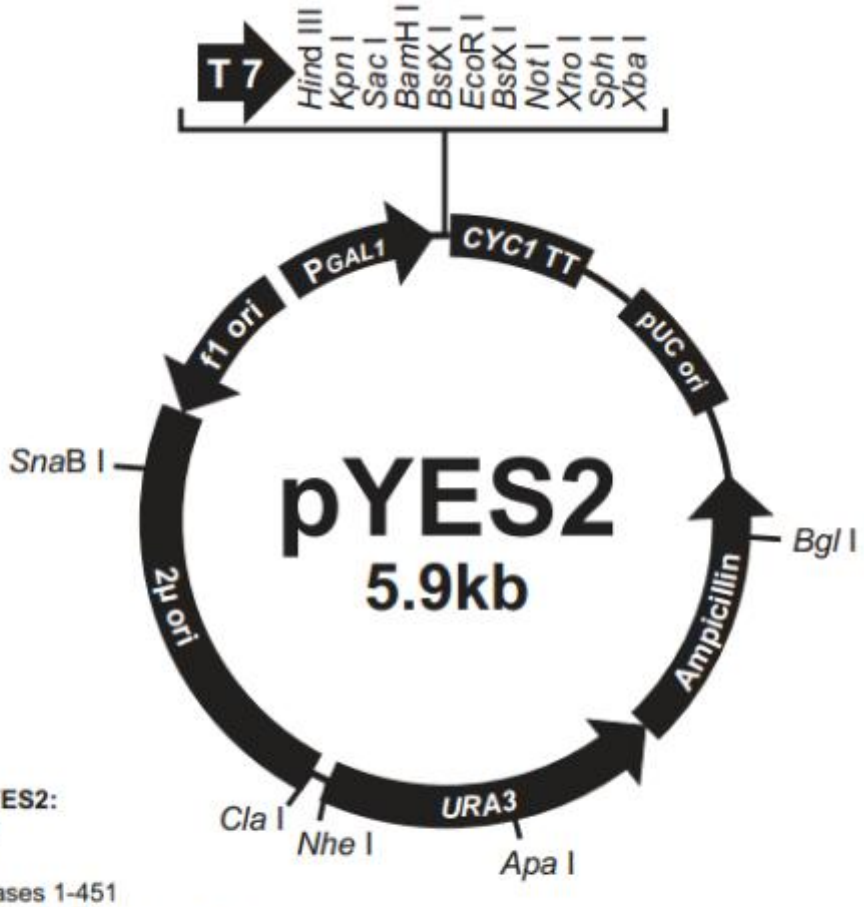
pYES2

基本信息

质粒类型:	酿酒酵母表达载体
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:	Ampicillin (氨苄青霉素)
筛选标记:	URA3
备注:	利用半乳糖诱导蛋白在酿酒酵母中表达

质粒图谱





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 (μ) 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

GGCCGCAAATTAAAGCCTTCGAGCGTCCCAAAACCTTCTCAAGCAAGGTTTTCAGTAT
AATGTTACATGC
GTACACGCGTCTGTACAGAAAAAAAAGAAAAATTTGAAATATAAATAACGTTCTTAATA
CTAACATAACT
ATAAAAAAATAAATAGGGACCTAGACTTCAGGTTGTCTAACTCCTTCCTTTTCGGTTAG
AGCGGATGTGG
GGGGAGGGCGTGAATGTAAGCGTGACATAACTAATTACATGATGCGGCCCTCTAGATGC
ATGCTCGAGCG
GCCGCCAGTGTGATGGATATCTGCAGAATTCCAGCACACTGGCGGCCGTTACTAGTGGA
TCCGAGCTCGG
TACCAAGCTTAATATTCCCTATAGTGAGTCGTATTACAGCTGCTAGTAGTCCGATCCGGG
GTTTTTTCTC
CTTGACGTTAAAGTATAGAGGTATATTAACAATTTTTTGTTGATACTTTTATTACATTTGA
ATAAGAAGT
AATACAAACCGAAAATGTTGAAAGTATTAGTTAAAGTGGTTAATGCAGTTTTTGCATTT
ATATATCTGTT
AATAGATCAAAAATCATCGCTTCGCTGATTAATTACCCCAGAAATAAGGCTAAAAAACT
AATCGCATTAT
CATCCTATGGTTGTTAATTTGATTCGTTCATTTGAAGGTTTGTGGGGCCAGGTTACTGCC
AATTTTTCCT
CTTCATAACCATAAAAGCTAGTATTGTAGAATCTTTATTGTTCGGAGCAGTGCGGCGCG
AGGCACATCTG
CGTTTCAGGAACGCGACCGGTGAGGACGAGGACGCACGGAGGAGAGTCTTCCTTCGG
AGGGCTGTCACCC
GCTCGGCGGCTTCTAATCCGTACTAGTGGATCATCCCCACGCGCCCTGTAGCGCCCCAT
TAAGCGCGGCG
GGTGTGGTGGTTACGCCCAGCGTGACCCCTACACTTCCCACCGCCCTAGCCCCCGCTC
CTTTCGCTTTCT
TCCCTTCCTTTCTCGCCACGTTCGCCGGCTTTCCCCGTCAAGCTCTAAATGGGGGCATC
CGTTTACCCTT
CCGATTTACTGCTTTACGGCACCTCGACCCCAAAAAACTTGATTAGGGTGATGGTTCAC
GTAGTGGGCCA
TCGCCCTGATAGACCCTTTTTCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGG
ACTCTTGTTGG
AAACTGGAACAACACTCAACCCTATCTCGGTCTATTCTTTTGATTTATAAGGGATTTTGC
CGATTTCGGG
CTATTCGTTAAAAAATGAGCTGATTTAACAAAAATTTAACGCGAATTTTAACAAAATATT
AACGTTTACA
ATTTAAATATTTGCTTATACAATCTTCCTGTTTTTGGGGCTTTTCTGATTATCAACCGGGG
TGGAGCTTC
CCATTGCGAATACCGCTTCCACAAACATTGCTCAAAAGTATCTCTTTGCTATATATCTCT
GTGCTATATC
CCTATATAACCTACCCATCCACCTTTCGCTCCTTGAACTTGCATCTAAACTCGACCTCTA

CATTTTTTAT
GTTTATCTCTAGTATTACTCTTTAGACAAAAAAATTGTAGTAAGAACTATTCATAGAGTG
AATCGAAAAC
AATACGAAAATGTAAACATTTCCTATACGTAGTATATAGAGACAAAATAGAAGAAACCG
TTCATAATTTT
CTGACCAATGAAGAATCATCAACGCTATCACTTTCTGTTCACAAAGTATGCGCAATCCA
CATCGGTATAG
AATATAATCGGGGATGCCTTTATCTTGAAAAAATGCACCCGCAGCTTCGCTAGTAATCA
GTAAACGCGGG
AAGTGGAGTCAGGCTTTTTTTATGGAAGAGAAAATAGACACCAAAGTAGCCTTCTTCT
AACCTTAACGGA
CCTACAGTGCAAAAAGTTATCAAGAGACTGCATTATAGAGCGCACAAAGGAGAAAAA
AAGTAATCTAAGA
TGCTTTGTTAGAAAAATAGCGCTCTCGGGATGCATTTTTGTAGAACAAAAAAGAAGTAT
AGATTCTTTGT
TGGTAAAATAGCGCTCTCGCGTTGCATTTCTGTTCTGTAAAAATGCAGCTCAGATTCTTT
GTTTGAAAAA
TTAGCGCTCTCGTCGCGTTGCATTTTTGTTTTACAAAAATGAAGCACAGATTCTTCGTT
GGTAAAATAGC
GCTTTCGCGTTGCATTTCTGTTCTGTAAAAATGCAGCTCAGATTCTTTGTTTGAAAAATT
AGCGCTCTCG
CGTTGCATTTTTGTTCTACAAAATGAAGCACAGATGCTTCGTTAACAAAGATATGCTATT
GAAGTGCAAG
ATGGAAACGCAGAAAATGAACCGGGGATGCGACGTGCAAGATTACCTATGCAATAGAT
GCAATAGTTTCT
CCAGGAACCGAAATACATACATTGTCTTCCGTAAAGCGCTAGACTATATATTATTATACA
GGTTCAAATA
TACTATCTGTTTCAGGGAAAACTCCCAGGTTCGGATGTTCAAAATTCAATGATGGGTAA
CAAGTACGATC
GTAAATCTGTAAAACAGTTTGTCGGATATTAGGCTGTATCTCCTCAAAGCGTATTCGAAT
ATCATTGAGA
AGCTGCAGCGTCACATCGGATAATAATGATGGCAGCCATTGTAGAAGTGCCTTTTGCAT
TTCTAGTCTCT
TTCTCGGTCTAGCTAGTTTTACTACATCGCGAAGATAGAATCTTAGATCACACTGCCTTT
GCTGAGCTGG
ATCAATAGAGTAACAAAAGAGTGGTAAGGCCTCGTTAAAGGACAAGGACCTGAGCGG
AAGTGTATCGTAC
AGTAGACGGAGTATCTAGTATAGTCTATAGTCCGTGGAATTAATTCTCATCTTTGACAGC
TTATCATCGA
TAAGCTAGCTTTTCAATTCAATTCATCATTTTTTTTTTATTCTTTTTTTTGATTTCGGTTTC
TTTGAAAT
TTTTTTGATTCGGTAATCTCCGAACAGAAGGAAGAACGAAGGAAGGAGCACAGACTT
AGATTGGTATATA
TACGCATATGTAGTGTTGAAGAAACATGAAATTGCCCAGTATTCTTAACCCAACTGCAC

AGAACAAAAAC
CTGCAGGAAACGAAGATAAATCATGTCGAAAGCTACATATAAGGAACGTGCTGCTACT
CATCCTAGTCCT
GTTGCTGCCAAGCTATTTAATATCATGCACGAAAAGCAAACAAACTTGTGTGCTTCATT
GGATGTTCGTA
CCACCAAGGAATTACTGGAGTTAGTTGAAGCATTAGGTCCCAAAATTTGTTTACTAAAA
ACACATGTGGA
TATCTTGACTGATTTTTCCATGGAGGGCACAGTTAAGCCGCTAAAGGCATTATCCGCCA
AGTACAATTTT
TTACTCTTCGAAGACAGAAAATTTGCTGACATTGGTAATACAGTCAAATTGCAGTACTC
TGCGGGTGTAT
ACAGAATAGCAGAATGGGCAGACATTACGAATGCACACGGTGTGGTGGGCCCAGGTAT
TGTTAGCGGTTT
GAAGCAGGCGGCAGAAGAAGTAACAAAGGAACCTAGAGGCCTTTTGATGTTAGCAGA
ATTGTCATGCAAG
GGCTCCCTATCTACTGGAGAATATACTAAGGGTACTGTTGACATTGCGAAGAGCGACAA
AGATTTTGTTA
TCGGCTTTATTGCTCAAAGAGACATGGGTGGAAGAGATGAAGGTTACGATTGGTTGATT
ATGACACCCGG
TGTGGGTTTAGATGACAAGGGAGACGCATTGGGTCAACAGTATAGAACCGTGGATGAT
GTGGTCTCTACA
GGATCTGACATTATTATTGTTGGAAGAGGACTATTTGCAAAGGGAAGGGATGCTAAGGT
AGAGGGTGAAC
GTTACAGAAAAGCAGGCTGGGAAGCATATTTGAGAAGATGCGGCCAGCAAAACTAAA
AAACTGTATTATA
AGTAAATGCATGTATACTAAACTCACAAATTAGAGCTTCAATTTAATTATATCAGTTATTA
CCCATTGAA
AAAGGAAGAGTATGAGTATTCAACATTTCCGTGTCGCCCTTATTCCCTTTTTTGCGGCAT
TTTGCCTTCC
TGTTTTTGCTCACCCAGAAACGCTGGTGAAAGTAAAAGATGCTGAAGATCAGTTGGGT
GCACGAGTGGGT
TACATCGAACTGGATCTCAACAGCGGTAAGATCCTTGAGAGTTTTCGCCCCGAAGAAC
GTTTTCCAATGA
TGAGCACTTTTAAAGTTCTGCTATGTGATACACTATTATCCCGTATTGACGCCGGGCAAG
AGCAACTCGG
TCGCCGCATACACTATTCTCAGAATGACTTGGTTGAGTACTCACCAGTCACAGAAAAG
CATCTTACGGAT
GGCATGACAGTAAGAGAATTATGCAGTGCTGCCATAACCATGAGTGATAACACTGCGG
CCAACTTACTTC
TGACAACGATCGGAGGACCGAAGGAGCTAACCGCTTTTTTGCACAACATGGGGGATCA
TGTAACTCGCCT
TGATCGTTGGGAACCGGAGCTGAATGAAGCCATACCAAACGACGAGAGTGACACCAC
GATGCCTGTAGCA
ATGCCAACAACGTTGCGCAAACTATTAACTGGCGAACTACTTACTCTAGCTTCCCGGCA

ACAATTAATAG
ACTGAATGGAGGCGGATAAAGTTGCAGGACCACTTCTGCGCTCGGCCCTTCCGGCTGG
CTGGTTTATTGC
TGATAAATCTGGAGCCGGTGAGCGTGGGTCTCGCGGTATCATTGCAGCACTGGGGCCA
GATGGTAAGCGC
TCCCGTATCGTAGTTATCTACACGACGGGGAGTCAGGCAACTATGGATGAACGAAATAG
ACAGATCGCTG
AGATAGGTGCCTCACTGATTAAGCATTGGTAACTGTCAGACCAAGTTTACTCATATATAC
TTTAGATTGA
TTTAAAACTTCATTTTTAATTTAAAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCAT
GACCAAAATC
CCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGAT
CTTCTTGAGATC
CTTTTTTTCTGCGCGTAATCTGCTGCTTGCAAACAAAAAAACCACCGCTACCAGCGGT
GGTTTGTTTGCC
GGATCAAGAGCTACCAACTCTTTTTCCGAAGGTAACTGGCTTCAGCAGAGCGCAGATA
CCAAATACTGTC
CTTCTAGTGTAGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACCGCCTACATA
CCTCGCTCTGC
TAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGGAC
TCAAGACGATA
GTTACCGGATAAGGCGCAGCGGTCGGGCTGAACGGGGGGTTCGTGCACACAGCCCAG
CTTGGAGCGAACG
ACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCG
AAGGGAGAAAGG
CGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTC
CAGGGGGAAACGC
CTGGTATCTTTATAGTCCTGTCGGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTG
ATGCTCGTCA
GGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCTGGGC
TTTTGCTGGCCTT
TTGCTCACATGTTCTTTCCTGCGTTATCCCCTGATTCTGTGGATAACCGTATTACCGCCTT
TGAGTGAGC
TGATACCGCTCGCCGCAGCCGAACGACCGAGCGCAGCGAGTCAGTGAGCGAGGAAGC
GGAAGAGCGCCCA
ATACGCAAACCGCCTCTCCCCGCGCGTTGGCCGATTCATTAATGCAG