pSYC332 pYPS1-Venus 143 (7087 bp)

NaeI
SgrAI
MreI
NgoMIV

gaaatctgctcgtcagtggtgctcacactgacgaatcatgtacagatcataccgatgactgcctggcgactcacaactaagcaagacagccggaaccagcgccggcg

ConE'

20 40 60 80 100

XcmI PstI

aacaccactgcatatatggcatatcacaacagtccacgtctcaagcagttacagagatgttacgaaccactagtgcactgcagtacaTTACCAATAGATAGCGGTTT

ConE' ConE scar

120 140 160 180 200

AATATAAGGTTTCAACAAGAAATATTTTGTGAAAATCAAAAGTTAATAGTTTCACTGTCGAAAATATGAAAGTTTAAGTTTTCAGTTCATCCCATTGTAGTTATCAA

220 240 260 280 300 320

BtgZI

ATTTCTGTGTTTCCCGTATATGTGTGCTCTGTATTCATCGCTATCTTGAAACTGGTTATGATCGTTGCGCATGTGACCTGTATCGCTCAAAAGAGCCCGGCACCGGT

340 360 380 400 420

ACCGGGCAAAAGCCCCTAGCAAGCTAAAATGATTCAACTTTCGTAGTAATTTGTTCAACCGGTCACAGTAAAGTCAATGACTAACTTTTGAATCGAGGATGTATTTC

440 460 480 500 520

CAATTGAAAGCAATGTATATATAAACCATTGTGTTGAAGCTTGTCTTACAGTTTTCTTGTATCCTCCCATTGTTCATATAGTACTTAAAGTACCATAATCCTTAAAG

540 560 580 600 620 640

BstEII
SexAI

AACAAACTTGAAAGAGAATACACTATACACAACTAATAAATAAAGAATAATCATGGCTGTGACCAAGACAATTGTAGTTCTACCAGGTGACCATGTTGGTCAAGAAA

660 680 700 720 740

Tth111I
PflFI BclI

TCACTGAAGAGGCCATTAAAGTTTTAAATGCTATTCAGGAATGTCGTCCAGACAAGGTCAATTTCAAGTTTGATCATCATTTGATCGGTGGTGCTGCAATTGATGCC

760 780 800 820 840

StuI

ACTGGTGTTCCATTACCAGACGAAGCTTTGGAGGCCTCTAAGAAAGCTGATGCCGTGCTTCTGGGTGCTGTTGGTGGTCCAAAATGGGGTACTGGCGCTGTCAGACC

860 880 900 920 940 960

AGAACAAGGTCTTTTGAAAATCCGTAAGGAGTTGCAATTGTATGCTAATCTAAGACCATGTAATTTTGCATCTGATTCCTTACTAGATCTATCGCCATTGAAGCCTG

980 1,000 1,020 1,040 1,060

AAATTGCAAGAGGTACAGATTTCGTCGTTGTTAGAGAACTAGTGGGTGGTATTTATTTCGGGGAGAGAAAAGAAGATGAAGGTGATGGTGTCGCCTGGGATAGCGAA

1,080 1,100 1,120 1,140 1,160

AAGTATTCTGTGCCCGAAGTTCAAAGAATCACTAGAATGGCTGCTTTCATGGCTCTGCAACACAACCCACCTTTACCTATTTGGaCTCTAGATAAAGCCAACGTTCT

1,180 1,200 1,220 1,240 1,260 1,280

AGCATCATCAAGATTATGGAGAAAAACAGTGGAAaAGACGATTAAGAATGAATTCCCACAATTGACTGTTCAACATCAATTGATTGATTCCGCTGCTATGATCTTGG

1,300 1,320 1,340 1,360 1,380

TTAAGAACCCAACTCATCTAAATGGTATTATTATCACAAACAATATGTTTGGTGATATTATCTCCGATGAAGCCTCCGTGATCCCAGGTTCGTTAGGATTACTTCCA

1,400 1,420 1,440 1,460 1,480

BglI

TCTGCCTCCTTGGCATCTCTTCCAGATAAGAATACGGCATTTGGTTTATATGAGCCATGTCATGGCTCTGCTCCAGACTTACCAAAGGGAAAGGTTAACCCCGTAGC

1,500 1,520 1,540 1,560 1,580 1,600

AACAATCCTATCTGCTGCTATGATGTTGAAGTTGTCTCTGGACCTGTTCGAAGAAGGTGAAATTATAGAACAAGCAGTCAAGAAAGTGTTGGATTCTGGTATCAGAA

1,620 1,640 1,660 1,680 1,700

CAGCGGATCTAAAGGGTACCAACTCTACTACTGAGGTCGGTGATGCAGTAGCGAAAGCTGTCAGGGAACTATTAGCTTAGACTTAGTAGATGTACAGTTGCATACAT

1,720 1,740 1,760 1,780 1,800

BsaBI

AAGTCTGAACAGAAAGAAGTAAATATCATATCTAGTTCGGTTTAGAAATCAGTGACTATATTGGTTTTGACCAGATCGCAATCCTTGCAAGCATTTAGTAATGACTA

1,820 1,840 1,860 1,880 1,900 1,920

TCAAACCGGTGAATCATCTGATAAGGCTATATTAGCTTGTGCATTCGCATGTATCGGGAAACGAACGAGTccaccgaagtcggtgatgctgtcgccgaagaagttaa

60 LEU2 3' Hom

1,940 1,960 1,980 2,000 2,020

gaaaatccttgcttaaaaagattctctttttttatgatatttgtacataaactttataaatgaaattcataatagaaacgacacgaaattacaaaatggaatatgtt

60 LEU2 3' Hom

2,040 2,060 2,080 2,100 2,120 2,140

catagggtagacgaaactatatacgcaatctacatacatttatcaagaaggagaaaaaggaggatgtaaaggaatacaggtaagcaaattgatactaatggctcaac

60 LEU2 3' Hom

2,160 2,180 2,200 2,220 2,240

gtgataaggaaaaagaattgcactttaacattaatattgacaaggaggagggcaccacacaaaaagttaggtgtaacagaaaatcatgaaactatgattcctaattt

60 LEU2 3' Hom

2,260 2,280 2,300 2,320 2,340

atatattggaggattttctctaaaaaaaaaaaaatacaacaaataaaaaacactcaatgacctgaccatttgatggagtttaagtcaataccttcttgaaccatttc

60 LEU2 3' Hom

2,360 2,380 2,400 2,420 2,440 2,460

NotI

ccataatggtgaaagttccctcaagaattttactctgtcagaaacggccttaacgacgtaccgagcggccgcgtgttacaaccaattaaccaattctgattagaaaa

60 LEU2 3' Hom KanR Terminator

2,480 2,500 2,520 2,540 2,560

actcatcgagcatcaaatgaaactgcaatttattcatatcaggattatcaataccatatttttgaaaaagccgtttctgtaatgaaggagaaaactcaccgaggcag

KanR

2,580 2,600 2,620 2,640 2,660

ttccataggatggcaagatcctggtatcggtctgcgattccgactcgtccaacatcaatacaacctattaatttcccctcgtcaaaaataaggttatcaagtgagaa

KanR

2,680 2,700 2,720 2,740 2,760 2,780

atcaccatgagtgacgactgaatccggtgagaatggcaaaagcttatgcatttctttccagacttgttcaacaggccagccattacgctcgtcatcaaaatcactcg

KanR

2,800 2,820 2,840 2,860 2,880

Bpu10I AsiSI
AjuI PvuI

catcaaccaaaccgttattcattcgtgattgcgcctgagcgaggcgaaatacgcgatcgctgttaaaaggacaattacaaacaggaatcgaatgcaaccggcgcagg

KanR

2,900 2,920 2,940 2,960 2,980

SmaI
TspMI
XmaI

aacactgccagcgcatcaacaatattttcacctgaatcaggatattcttctaatacctggaatgctgttttcccggggatcgcagtggtgagtaaccatgcatcatc

KanR

3,000 3,020 3,040 3,060 3,080 3,100

aggagtacggataaaatgcttgatggtcggaagaggcataaattccgtcagccagtttagtctgaccatctcatctgtaacatcattggcaacgctacctttgccat

KanR

3,120 3,140 3,160 3,180 3,200

BspDI
ClaI
NruI

gtttcagaaacaactctggcgcatcgggcttcccatacaatcgatagattgtcgcacctgattgcccgacattatcgcgagcccatttatacccatataaatcagca

KanR

3,220 3,240 3,260 3,280 3,300

tccatgttggaatttaatcgcggcctggagcaagacgtttcccgttgaatatggctcataacaccccttgtattactgtttatgtaagcagacagttttattgttca

KanR KanR Promoter

3,320 3,340 3,360 3,380 3,400 3,420

DraIII

tgatgatatatttttatcttgtgcaatgtaacatcagagattttgagacacaacgtggctttgttgaataaatcgaacttttgctgagttgaaggatcagtcatgac

KanR Promoter

3,440 3,460 3,480 3,500 3,520

caaaatcccttaacgtgagttttcgttccactgagcgtcagaccccgtagaaaagatcaaaggatcttcttgagatcctttttttctgcgcgtaatctgctgcttgc

ColE1

3,540 3,560 3,580 3,600 3,620

aaacaaaaaaaccaccgctaccagcggtggtttgtttgccggatcaagagctaccaactctttttccgaaggtaactggcttcagcagagcgcagataccaaatact

ColE1

3,640 3,660 3,680 3,700 3,720 3,740

gttcttctagtgtagccgtagttaggccaccacttcaagaactctgtagcaccgcctacatacctcgctctgctaatcctgttaccagtggctgctgccagtggcga

ColE1

3,760 3,780 3,800 3,820 3,840

BseYI

taagtcgtgtcttaccgggttggactcaagacgatagttaccggataaggcgcagcggtcgggctgaacggggggttcgtgcacacagcccagcttggagcgaacga

ColE1

3,860 3,880 3,900 3,920 3,940

cctacaccgaactgagatacctacagcgtgagctatgagaaagcgccacgcttcccgaagggagaaaggcggacaggtatccggtaagcggcagggtcggaacagga

ColE1

3,960 3,980 4,000 4,020 4,040 4,060

BssSαI
BssSI
DrdI

gagcgcacgagggagcttccagggggaaacgcctggtatctttatagtcctgtcgggtttcgccacctctgacttgagcgtcgatttttgtgatgctcgtcaggggg

ColE1

4,080 4,100 4,120 4,140 4,160

PciI

gcggagcctatggaaaaacgccagcaacgcggcctttttacggttcctggccttttgctggccttttgctcacatgttctttcctgcgttatcccctgattctgtgg

ColE1

4,180 4,200 4,220 4,240 4,260 4,280

NotI

ataaccgtgcggccgccaatGAGGAGAACTTCTAGTATATCTACATACCTAATATTATTGCCTTATTAAAAATGGAATCCCAACAATTACATCAAAATCCACATTCT

LEU2 5'UTR

4,300 4,320 4,340 4,360 4,380

CTTCAAAATCAATTGTCCTGTACTTCCTTGTTCATGTGTGTTCAAAAACGTTATATTTATAGGATAATTATACTCTATTTCTCAACAAGTAATTGGTTGTTTGGCCG

LEU2 5'UTR

4,400 4,420 4,440 4,460 4,480

PluTI
SfoI
BsaHI
NarI
KasI

AGCGGTCTAAGGCGCCTGATTCAAGAAATATCTTGACCGCAGTTAACTGTGGGAATACTCAGGTATCGTAAGATGCAAGAGTTCGAATCTCTTAGCAACCATTATTT

LEU2 5'UTR

4,500 4,520 4,540 4,560 4,580 4,600

TTTTCCTCAACATAACGAGAACACACAGGGGCGCTATCGCACAGAATCAAATTCGATGACTGGAAATTTTTTGTTAATTTCAGAGGTCGCCTGACGCATATACCTTT

LEU2 5'UTR

4,620 4,640 4,660 4,680 4,700

TTCAACTGAAAAATTGGGAGAAAAAGGAAAGGTGAGAGCGCCGGAACCGGCTTTTCATATAGAATAGAGAAGCGTTCATGACTAAATGCTTGCATCACAATACTTGA

LEU2 5'UTR

4,720 4,740 4,760 4,780 4,800

AGTTGACAATATTATTTAAGGACCTATTGTTTTTTCCAATAGGTGGTTAGCAATCGTCTTACTTTCTAACTTTTCTTACCTTTTACATTTCAGCAATATATATATAT

LEU2 5'UTR

4,820 4,840 4,860 4,880 4,900 4,920

PfoI

ATATTTCAAGGATATACCATTCTACCCTgaattcgcatctagactgatgagacgtggtagagccacaaacagccggtacaagcaacgatctccaggaccatctgaat

LEU2 5'UTR ConS'

4,940 4,960 4,980 5,000 5,020

catgcgcggatgacacgaactcacgacggcgatcacagacattaacccacagtacagacactgcgacaacgtggcaattcgtcgcaatacaacgcagaccagtgtgg

ConS'

5,040 5,060 5,080 5,100 5,120

PshAI FauI BsaAI

ggacctgtgtcttggcaataattccacaagcgggcaacgccaccgctatccttggtgattccttcttgagaaacgcctacgtggtctacgatttggataactacgag

YPS1 promoter

5,140 5,160 5,180 5,200 5,220 5,240

ApaI

PspOMI

atttccctagctcaagccaagtatggcacggggaaagagaacgtcgaagtcatcaaatctaccgttcccagtgcaataagggcccccagttacaacaacacttggtc

YPS1 promoter

5,260 5,280 5,300 5,320 5,340

FspAI

taactacgcctccgccacgtccggtggtaatatttttaccaccgtgcgcactttcaatggcaccagtactgccaccactacgaggtcaaccaccaccaagaagacaa

YPS1 promoter

5,360 5,380 5,400 5,420 5,440

BbsI SalI

actctaccactactgcaaagtcgactcataaaagcaagagggcactccagagggctgctaccaactccgcttccagtatacgctctaccttgggtttactgctagtc

YPS1 promoter

5,460 5,480 5,500 5,520 5,540 5,560

ccctccttactcatcctttccgttttcttttcgtaaaaaaaaacaatagacactatatatagacacttttttcctttccttctttgcgcgatttcaagaggaaaagca

YPS1 promoter

5,580 5,600 5,620 5,640 5,660

MluI

tacttaaataagaatattcctaaaacacacgttctgacgcgtcaattagatcgtcagaccttgcatgcagccaagacaccctcacatagcactgcctccttcctcct

YPS1 promoter

5,680 5,700 5,720 5,740 5,760

AleI

cttttctgtcaccacctcacctccctcgtccactcaactgagtggcttttcgctccttttatactgcgccatgagtagttttcgtttcactgatgtgtccgaaaaaa

YPS1 promoter

5,780 5,800 5,820 5,840 5,860 5,880

AflII

ttgaggtttcataaaaaaattcgtggacttatttatggagaaacagggaaatccgactacttaagaaaagggtgtcaaagaggatttactttttccttctttttgc

YPS1 promoter

5,900 5,920 5,940 5,960 5,980

atttgttcctatttccgcaattggacggttattaagaagaacgcaattggcttttctgtatattaaaatacatagcgtaataaaaagataaggtgaacaccaagcat

YPS1 promoter

6,000 6,020 6,040 6,060 6,080

atagtataatattacctaccacatAGATCTATGtctaaaggtgaagaattattcactggtgttgtcccaattttggttgaattagatggtgatgttaatggtcacaa

YPS1 promoter Venus

6,100 6,120 6,140 6,160 6,180 6,200

MscI

attttctgtctccggtgaaggtgaaggtgatgctacttacggtaaattgaccttaaaattgatttgtactactggtaaattgccagttccatggccaaccttagtca

Venus

6,220 6,240 6,260 6,280 6,300

NdeI

ctactttaggttatggtttgcaatgttttgctagatacccagatcatatgaaacaacatgactttttcaagtctgccatgccagaaggttatgttcaagaaagaact

Venus

6,320 6,340 6,360 6,380 6,400 6,420

atttttttcaaagatgacggtaactacaagaccagagctgaagtcaagtttgaaggtgataccttagttaatagaatcgaattaaaaggtattgattttaaagaagg

Venus

6,440 6,460 6,480 6,500 6,520

tggtaacattttaggtcacaaattggaatacaactataactctcacaatgtttacatcactgctgacaaacaaaagaatggtatcaaagctaacttcaaaattagac

Venus

6,540 6,560 6,580 6,600 6,620

acaacattgaagatggtggtgttcaattagctgaccattatcaacaaaatactccaattggtgatggtccagtcttgttaccagacaaccattacttatcctatcaa

Venus

6,640 6,660 6,680 6,700 6,720 6,740

BamHI

tctgccttatccaaagatccaaacgaaaagagagatcacatggtcttgttagaatttgttactgctgctggtattacccatggtatggatgaattgtacaaaggatc

Venus

6,760 6,780 6,800 6,820 6,840

PaeR7I
PspXI
XhoI
TliI

ctaactcgaggcgaatttcttatgatttatgatttttattattaaataagttataaaaaaaataagtgtatacaaattttaaagtgactcttaggttttaaaacgaa

ScADH1 Terminator

6,860 6,880 6,900 6,920 6,940

aattcttattcttgagtaactctttcctgtaggtcaggttgctttctcaggtatagcatgaggtcgctcttattgaccacacctctaccggcatgccgagcaaatgc

ScADH1 Terminator

6,960 6,980 7,000 7,020 7,040 7,060

ctgcaaatcgctccccatttcgctg

7,070 7,080