

Double Enhanced CaMV 35S promoter – [nptII](#) – 35S terminator cassette (reverse compliment of sequence shown in pCAMBIA 2300, since it is in the other orientation).

CGACACTCTCGTCTACTCCAAGAATATCAAAGATACAGTCTCAGAAGACCAAAGGGCTATTGAGACTTTTCAACAAAGGGTAATATCGGGAAAC
CTCCTCGGATTCATTGCCAGCTATCTGTCACTTCATCAAAAGGACAGTAGAAAAGGAAGGTGGCACCTACAAATGCCATCATTGCGATAAAG
GAAAGGCTATCGTTCAAGATGCCTCTGCCGACAGTGGTCCCAAAGATGGACCCCAACACGAGGAGCATCGTGGAAAAAGAAGACGTTCCAAC
CACGTTCTCAAAGCAAGTGGATTGATGTGATATCTCCACTGACGTAAAGGGATGACGCACAATCCCCTATCCTTCGCAAGACCTTCTCTATAT
AAGGAAGTTCAATTTCAATTTGGAGAGGACACGCTGAAATCACCAGTCTCTCTCTACAAATCTATCTCTCTCGAGCTTTCGCAGATCTGTGATCG
ACCATGGGGATTGAACAAGATGGATTGCACGCAGGTTCTCCGGCCGCTTGGGTGGAGAGGCTATTCCGGCTATGACTGGGCACAACAGACAATCG
GCTGCTCTGATGCCCGCGTGTTCGGCTGTCCAGCGCAGGGGGCCCGGTTCTTTTGTCAAGACCCGACCTGTCCGGTGCCCTGAATGAACCTCA
GGACGAGGCAGCGCGGCTATCGTGGCTGGCCAGCGAGGGCTTCCCTTGGCAGCTGTGCTGCAGCTGTCTACTGAAGCGGGAAGGGACTGGCTG
CTATTGGGCGAAGTCCCGGATGGATCTCCTGTGATCTCAGTCTGCTCTGCTCCGCGAGAAAGTATCCATCATGGCTGATGCAATGCCGGCGCTGC
ATACGCTTGATCCGGCTACCTGCCATTCGACCACCAAGCGAAACATCGCATCGAGCGAGCACGTACTCGGATGGAAGCCGGTCTTGTGATCA
GGATGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCCGAACTGTTCCGCGAGGCTCAAGGCGCGCATGCCCGACGGCGAGGATCTCGTCTGT
ACACATGGCGATGCCTGCTTGGCGAATATCATGGTGGAAAAATGGCCGCTTTTTCTGGATTTCATCGACTGTGGCCGGCTGGGTGTGGCGGACCGCT
ATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGACCGCTTCTCTGCTTTACGGTATCGCCGCTCC
CGATTCCGAGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCGAGCGGGACTCTGGGGTTCGGATCGATCCTCTAGCTAGAGTCAATCG
ACAAGCTCGAGTTTCTCCATAATAATGTGTGAGTAGTTCCAGATAAGGGAATTAGGGTTTCTATAGGGTTTTCGCTCATGTGTTGAGCATATAA
GAAACCCTTAGTATGATTTGTATTTGTAAAATACTTCTATCAATAAAATTTCTAATTCCTAAAACCAAATCCAGTACTAAAATCCAGATCCC
CCGAATTAATTCGGCGTTAATTCAG

Binary vector pCAMBIA-2300, complete sequence

LOCUS AF234315 8742 bp DNA circular SYN 24-APR-2000
DEFINITION Binary vector pCAMBIA-2300, complete sequence.
ACCESSION AF234315
VERSION AF234315.1 GI:7638145
KEYWORDS .
SOURCE Binary vector pCAMBIA-2300
ORGANISM [Binary vector pCAMBIA-2300](#)
other sequences; artificial sequences; vectors.
REFERENCE 1 (sites)
AUTHORS Hajdukiewicz,P., Svab,Z. and Maliga,P.
TITLE The small, versatile pZP family of Agrobacterium binary vectors
for plant transformation
JOURNAL Plant Mol. Biol. 25 (6), 989-994 (1994)
PUBMED [7919218](#)
REFERENCE 2 (bases 1 to 8742)
AUTHORS Roberts,C., Rajagopal,S., Smith,L.M., Nguyen,T.A., Yang,W.,
Nugrohu,S., Ravi,K.S., Vijayachandra,K., Harcourt,R.L.,
Dransfield,L., Desamero,N., Slamet,I., Hadjukiewicz,P., Svab,Z.,
Maliga,P., Mayer,J.E., Keese,P.K., Kilian,A. and Jefferson,R.A.
TITLE A comprehensive set of modular vectors for advanced manipulations
and efficient transformation of plants
JOURNAL Unpublished
REMARK Full description of constructs
REFERENCE 3 (bases 1 to 8742)
AUTHORS Roberts,C., Rajagopal,S., Smith,L.M., Nguyen,T.A., Yang,W.,
Nugrohu,S., Ravi,K.S., Vijayachandra,K., Harcourt,R.L.,
Dransfield,L., Desamero,N., Slamet,I., Hadjukiewicz,P., Svab,Z.,
Maliga,P., Mayer,J.E., Keese,P.K., Kilian,A. and Jefferson,R.A.
TITLE Direct Submission
JOURNAL Submitted (15-FEB-2000) CAMBIA, Clunies Ross St, Black Mountain /
GPO Box 3200, Canberra, ACT 2601, Australia
FEATURES
source Location/Qualifiers
1..8742
/organism="Binary vector pCAMBIA-2300"
/mol_type="other DNA"
/db_xref="taxon:[118407](#)"
[misc feature](#) complement(980..1980)
/note="STA region from pVS1 plasmid"
[rep origin](#) complement(2573..3573)
/note="pVS1-REP; replication origin from pVS1"
[misc feature](#) complement(3983..4243)
/note="bom site from pBR322"
[rep origin](#) complement(4383..4663)
/note="pBR322 origin of replication"
[CDS](#) complement(4954..5748)
/note="aadA (kanamycin resistance) gene amplified from
pIG121Hm"
/codon_start=1
/product="aminoglycoside phosphotransferase"
/protein_id="[AAF65399.1](#)"
/db_xref="GI:7638147"

/translation="MAKMRISP...
MDSRYK...
EDEQSP...
EDTPFK...
YDIAFC...
6173..6198

misc feature

/note="left border repeat from C58 T-DNA"

misc feature

6265..6468

/note="CaMV 3'UTR (polyA signal)"

CDS

complement(6506..7303)

/note="nptII (kanamycin resistance) gene"

/codon_start=1

/product="neomycin phosphotransferase"

/protein_id="AAF65400.1"

/db_xref="GI:7638148"

/translation="MGIEQDGLHAGSPA...
RPVLFV...
LLSSH...
EEHQGL...
YQDIAL...
complement(7334..8114)

promoter

/note="CaMV35S2; CaMV 35S promoter, duplicated"

promoter

8262..8316

/note="PlacZ; lacZ promoter"

CDS

8344..8577

/codon_start=1

/product="LacZ alpha fragment"

/protein_id="AAF65398.1"

/db_xref="GI:7638146"

/translation="MTMITN...
RLAAH...
8358..8414

misc feature

/note="pUC18 MCS; polylinker"

misc feature

8656..8681

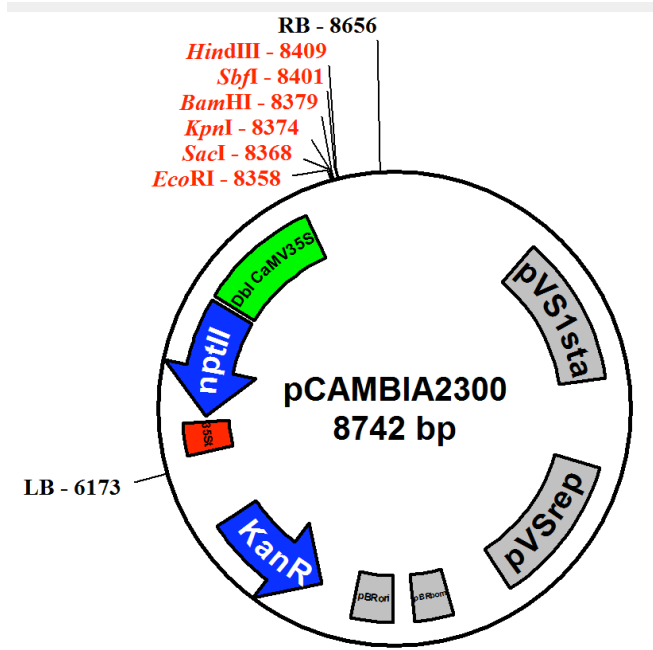
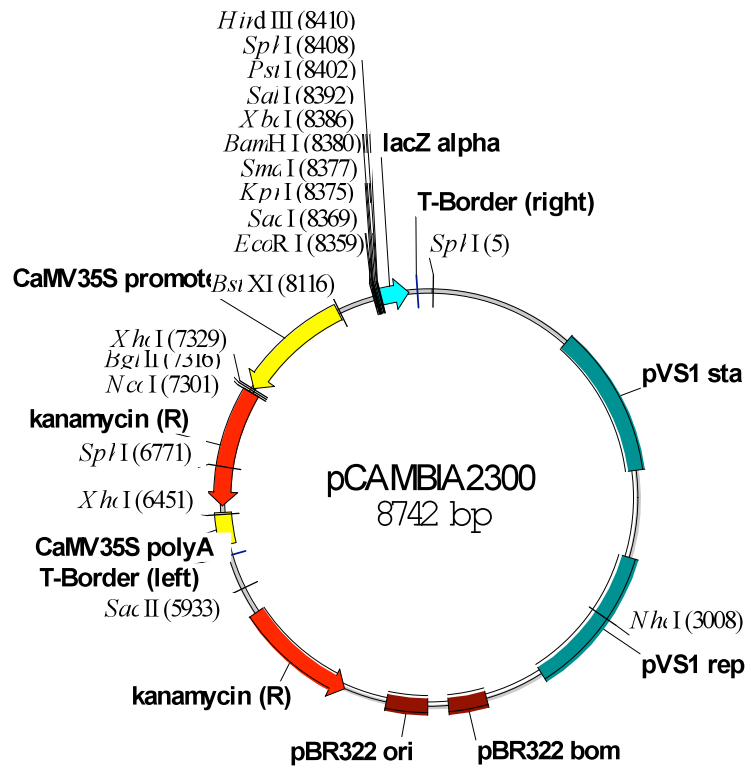
/note="right border T-DNA repeat"

ORIGIN

1 catgccaacc acaggggttc cctcgggatc aaagtacttt gatccaacc ctccgctgct
61 atagtgcagt cggcttctga cgttcagtgc agccgtcttc tgaanaacgac atgtcgcaca
121 agtcctaagt tacgcgacag gctgcgcgcc tgccttttc ctggcgtttt cttgtcgcgt
181 gtttttagtcg cataaagtag aatacttgcg actagaaccg gagacattac gccatgaaca
241 agagcgccgc cgctggcctg ctgggctatg cccgcgtcag caccgacgac caggacttga
301 ccaaccaacg ggccgaactg cacgcggccg gctgcaccaa gctgttttcc gagaagatca
361 ccggcaccag gcgcgaccgc ccggagctgg ccaggatgct tgaccacctc cgccctggcg
421 acgttgtgac agtgaccagg ctagaccgcc tggcccgcag caccgcgcag ctactggaca
481 ttgccgagcg catccaggag gccggcgcgg gcctgcgtag cctggcagag ccgtggggccg
541 acaccaccac gccgcggcgc cgcattggtg tgaccgtggt cgccggcatt gccgagttcg
601 agcgttccct aatcatcgac cgcacccgga gggggcgcga ggccgccaag gcccgaggcg
661 tgaagtttgg cccccgcctt acctcacc cggcacagat cgcgcaacgc cgcgagctga
721 tgcaccagga agggcgcacc gtgaaagagg cggctgcact gcttggcgtg catcgctcga
781 ccctgtaccg cgcacttgag cgcagcgagg aagtgcgccc caccgaggcc aggcggcgcg
841 gtgccttccg tgaggacgca ttgaccgagg ccgacgcctt ggcggccgcc gagaatgaac
901 gcaagagaga acaagcatga aaccgcacca ggacggccag gacgaaccgt ttttcattac
961 cgaagagatc gaggcgaga tgatcgcggc cgggtacgtg ttcgagccgc ccgcgcacgt
1021 ctcaaccgctg cggctgcatg aaatcctggc cggtttgtct gatgccaagc tggcggcctg
1081 gccgcccagc ttggccgctg aagaaaccga gcgccgcccgt ctaaaaagggt gatgtgtatt
1141 tgagtaaaac agcttgcgct atcggtgcgc tgcgtatag atgcatgag taaataaaca
1201 aatacgcgaag gggaacgcat gaaggttatc gctgtactta accgaaagg cgggtcaggc
1261 aagacgacca tcgcaacca tctagcccgc gccctgcaac tcgcccgggc cgatgttctg
1321 ttagtgcgatt ccgatcccca gggcagtgcc cgcgattggg cggccgtgcg ggaagatcaa
1381 ccgctaaccg ttgtcggcat cgaccgcccg acgattgacc gcgacgtgaa ggccatcggc
1441 cggcgcgact tctgtagtgc cgacggagcg ccccaggcgg cggacttggc tgtgtccgcg
1501 atcaaggcag ccgacttctg gctgattccg gtgcagccaa gcccttacga catatgggccc
1561 accgcccagc ttggtggagct ggttaagcag cgcattgagg tcacggatgg aaggctacaa
1621 cgggcctttg tcgtgtcgcg ggcgatcaaa ggcacgcgca tcggcgggtga ggttgcggag
1681 gcgctggccg ggtacgagct gccattctt gactcccgta tcacgcagcg cgtgagctac
1741 ccaggcactg ccgcccgcgg cacaaccgctt cttgaatcag aaccggaggg cgacgctgcc
1801 cgcgaggtcc aggcgctggc cgcgtgaaat aatcaaaac tcatttgagt taatgaggta
1861 aagagaaaat gagcaaaaag acaaacacgc taagtgcggc ccgtccgagc gcacgcagca
1921 ccaagcgttc aacgttggcc agcctggcag acacgccagc catgaaagcgg gtcaactttc
1981 agttgcccgc ggaggatcac accaagctga agatgtacgc ggtacgcca ggcaagacca
2041 ttaccgagct gctatctgaa tacatcgccg agctaccaga gtaaatgagc aatgaataa
2101 atgagtagat gaatttttag ggctaaagga ggcggcatgg aaaatcaaga acaaccaggc
2161 accgacgccc tggaatgccc catgtgtgga ggaacgggcg gttggccagg cgtaaagcggc
2221 tgggttctgt gccggccctg caatggcact ggaaccccca agcccaggga atcggcgtga
2281 cggtcgcaaa ccctccggcc cgttacaat cggcgcggcg ctgggtgatg acctggtgga
2341 gaagttgaag ccgcgcgagc ccgcccagcg gcaacgcacg gaggcagaag cacgcccgg
2401 tgaatcgtgg caagcggcgg ctgatcgaat ccgcaaaaga tcccggcaac cgcggcagc
2461 cggctgcgccc tcgattagga agccgcccaa gggcgcagcg caaccagatt ttttcgttcc
2521 gatgctctat gactggggca cccgcgatag tcgcagcatc atggacgtgg ccgttttccg

2581 tctgtcgaag cgtgaccgac gagctggcga ggtgatccgc tacgagcttc cagacgggca
2641 cgtagagggt tccgcagggc cggccggcat ggccagtgtg tgggattacg acctggtact
2701 gatggcgggt tcccattcaa ccgaatccat gaaccgatac cgggaaggga agggagacaa
2761 gcccggccgc gtgttccgtc cacacgttgc ggacgtactc aagttctgcc ggcgagccga
2821 tggcggaagc cagaagacg acctggtaga aacctgcatt cggttaaaca ccacgcacgt
2881 tgccatgcag cgtacgaaga aggccaaaga cggccgcctg gtgacggtat ccgaggggtga
2941 agccttgatt agccgctaca agatcgtaaa gagcgaaac gggcgggccgg agtacatcga
3001 gatcgagcta gctgattgga gtaccgcgga gatcacagaa ggcaagaacc cggacgtgct
3061 gacggttcac cccgattact ttttgatcga tcccgcatc ggcggtttc tctaccgct
3121 ggcacgccgc gccgcaggca aggcagaagc cagatggttg ttcaagacga tctacgaacg
3181 cagtggcagc gccggagagt tcaagaagt ctgtttcacc gtgcgcaagc tgatcgggtc
3241 aaatgacctg ccggagtacg atttgaagga ggaggcgggg caggctggcc cgatecctagt
3301 catgcgctac cgcaacctga tcgagggcga agcatccgcc ggttctaat gtacggagca
3361 gatgctaggc caaattgccc tagcagggga aaaaggtcga aaaggtctct ttctctggtga
3421 tagcacgtac attgggaacc caaagccgta cattgggaac cggaaacctg acattgggaa
3481 cccaaagccc taccattgga accggtcaca catgtaagtg actgatataa aagagaaaaa
3541 aggcgatttt tccgcctaaa actctttaa acttattaa actcttaaa cccgcctggc
3601 ctgtgcataa ctgtctggcc agcgcacagc cgaagagctg caaaaaagcg ctacccttcg
3661 gtcgctggc tccctacgcc ccgcccctc gcgtcggcct atcgcggccg ctggccgctc
3721 aaaaatggct ggcctagccc caggcaatct accagggcgc ggacaagccc cgccctgcc
3781 actcgaccgc cggcgccac atcaaggcac cctgcctcgc gcgtttcggg gatgacgggtg
3841 aaaacctctg acacatgcag ctcccggaga cgytcacagc ttgtctgtaa gcggtgccc
3901 ggagcagaca agcccgtcag ggcgcgtcag cgggtgttgg cgggtgtcgg gggcagcca
3961 tgaccagtc acgtagcagc agcggagtgt atactggctt aactatcggc catcagagca
4021 gattgtactg agagtgcacc atatgctgtg tgaataaccg cacagatgcg taaggagaaa
4081 ataccgcatc aggcctctct ccgcttctc gctcactgac tcgctgcgct cggctcgttcg
4141 gctgcggcga gcggtatcac ctactcaaa ggcggtataa cggttatcca cagaatcagg
4201 ggtacaagca ggaagaagca gtgagcaaaa aggccagcaa aaggccagga accgtaaaaa
4261 ggcgcgcttg ctggcgtttt tccataggct ccgccccct gacgagcatc aaaaaaatcg
4321 acgctcaagt cagaggtggc gaaacctgac aggactataa agataccagg cgtttcccc
4381 tggaagctcc ctctgctgct ctctgttcc gaccctgccc cttaccggat acctgtccgc
4441 ctttctccct tcgggaagcg tggcgcttcc tcatagctca cgtctgtagg atctcagttc
4501 ggtgtaggtc gttcgtcca agctgggctg tgtgcacgaa cccccgctt agcccagccg
4561 ctgcccctta tccgtaact atcgtcttga gtccaacctg gtaagacacg acttatcgcc
4621 actggcagca gccactggta acaggattag cagagcggag tatgtaggcg gtgctacaga
4681 gttcttgaag tggtygccta actacggcta cactagaagg acagtatttg gtatctcgcg
4741 tctgtgaag ccagttacct tcggaaaaag agttggtagc tcttgatccg gcaaaaaaac
4801 caccgctggt agcgggtggt tttttgttg caagcagcag attacgcgca gaaaaaaagg
4861 atctcaagaa gatcctttga tcttttctac ggggtctgac gctcagtgga cgaaaaaact
4921 acgttaaggg attttgctca tgcattctag gtaactaaac aattcatcca gtaaaaata
4981 atattttatt ttctcccaat caggcttgat ccccagtaag tcaaaaaata gctcgacata
5041 ctgttcttcc ccgatatcct ccctgatcga ccggacgcag aaggcaatgt cataccactt
5101 gtccgcccctg ccgcttctcc caagatcaat aaagccactt actttgccc ctttcacaaa
5161 gatgttgctg tctcccagct ccgctgggga aaagacaagt tctctctcgg gcttttccg
5221 ctttaaaaaa tcatacagct cgcgaggatc ttaaatgga gtgtcttctt cccagttttc
5281 gcaatccaca tcggccagat cgttattcag taagtaatcc aattcggcta agcggctgct
5341 taagctattc gtatagggac aatccgatat gtcgatggag tgaaagagcc tgatgcactc
5401 cgcatacagc gcgataatct tttcagggct ttgttcatc tcatactctt ccagcaaaag
5461 gacgcatcgc ccctcactca tgagcagatt gctccagcca tcatgccgtt caaagtgcag
5521 gaccttgga acaggcagct ttcttccag ccatagcacc atgtcctttt cccgttccac
5581 atcataggtg gtccttttat accggctgct cgtcattttt aaatataggt tttcattttc
5641 tcccaccagc ttatatacct tagcaggaga cattcctcc gtaactttta cgcagcggta
5701 tttttcagtc agttttttca attccgggta tattctcatt tttagcattt attatttct
5761 tctcttttcc tacagtattt aaagatacc caagaagcta attataaaa gacgaactcc
5821 aattcactgt tccctgcatt ctaaaacctt aaataccaga aaacagcttt ttcaaagttg
5881 ttttcaaagt tggcgtataa catagtatcg accggagcga ttttgaaac gcggtgatca
5941 cggcagcaag cgcctctgca tcgttacaat caacatgcta cctcccgcga gatcatccgt
6001 gtttcaaacc cggcagctta gttgcccgtc ttccgaatag catcggtaac atgagcaaa
6061 tctgcccgcct tacaacggct ctcccgcgta cgcgctccc gactgatggg ctgctggtat
6121 cgagtgggta ttttgtgccc agctgcccgt cggggagctg ttggctggct ggtggcagga
6181 tatattgtgg tgtaaacaaa ttgacgctta gacaacttaa taacacattg cggacgtttt
6241 taatgtactg aattaacgcc gaattaattc ggggatctg gatttttagta ctggattttg
6301 gttttaggaa ttgaaatatt tattgataga agtattttac aaatacaaat acatactaag
6361 ggtttcttat atgctcaaca catgagcga accctatagg aaccctaatt ccttatctg
6421 ggaactactc acacattatt atggagaaac tcgagctgtg cgatecactc tagctagagg
6481 atcgatccga accccagagt cccgctcaga agaactcgtc aagaaggcga tagaaggcga
6541 tgcgctgcga atcgggagcg gcgataccgt aaagcagcag gaagcggctc gccattcgc
6601 cgccaagctc ttcagcaata tcacgggtag ccaacgctat gtcctgatag cggctccgca
6661 caccagccgc gccacagtcg atgaatccag aaaagcggcc attttcacc atgatattcg
6721 gcaagcagcg atcgcctatg gtcacgacga gatcctcggc gtcgggcatg cggccttga
6781 gcctggcgaa cagttcggct ggcgcgagcc cctgatgctc ttcgctcaga tcatcctgat
6841 cgacaagacc ggcttccatc cgagtacgtg ctgcctcgtc gcgatgtttc gcttgggtgg
6901 cgaatgggca ggtagccgga tcaagcgtat gcaagcggcc cattgcatca gccatgatg
6961 atactttctc ggcaggagca aggtgagatg acaggagatc ctgccccggc acttcgcca
7021 atagcagcca gtcccttccc gcttcagtga caacgtcagc cacagctgcg caaggacgc
7081 ccgtcgtggc cagccacgat agcccgctg cctcgtcctg gagtctattc agggcaccgg
7141 acagtcggt cttgacaaaa gcaaccgggc gccctcgcg tgacagccgg aacacggcgg
7201 catcagagca gccgattgtc tgttgtgccc agtcatagcc gaatagctc tccaccaag
7261 cggccggaga acctgcgtgc aatccatctt gttcaatccc catggtcagat cgacagatct

GCCGAGCTGCCGGTCGGGGAGCTGTGGCTGGCTGGTGGCAGGATATATTGTGGTGTAAACAATTGACGCTTAGACAACCTAATAACACATTGCGGACGTTTTTAAATGTACTGAATT
 AACGCCGAATTAATTCGGGGGATCTGGATTTTAGTACTGGATTTTGGTTTtaggaATTAGAAATTTATTGATAGAAGTATTTTACAATACAAATACATACTAAGGGTTTTCTTATAT
 GCTCAACACATGAGCGAAACCTATAGGAACCTAATTCCTTATCTGGAACTACTCACACATTATTTAGGAGAACTCGAGCTTGTGCGATCGACTCTAGCTAGAGGATCGATCCGA
 ACCCCAGAGTCCCGC**TCAGAAGAAC**TCGTCAAGAAGGCGATAGAAGGCGATGCGCTGCGAATCGGGAGCGCGATACCGTAAAGCACGAGGAAGCGGTCAGCCCCATTCGCGCCCAAGC
 TCTTCAGCAATATCAGGGTAGCCAAGCTATGTCTCTGATAGCGGTCGCCACACCCAGCGGCCACAGTCGATGAATCCAGAAAAGCGGCATTTTCCACCATGATATTGCGCAAGC
 AGGCATCGCCATGTCACAGCAGGATCCTCGCCGTCGGGATGCGCGCTTGAGCTGGCGAACAGTTCGGCTGGCGCGAGCCCTGATGCTCTTCGTCCAGATCATCTGATCGAC
 AAGACCGCTTCCATCCGAGTACGTGCTCGATGCGATGTTTCGCTTGGTGGTTCGAATGGGCAGGTAGCCGATCAAGCGTATGCAGCCGCGCAATGGCATCAGCCATGATGGAT
 ACTTTCTCGGCAGGAGCAAGTGATGACAGGAGATCCTGCCCCGCACTTCGCCAAATAGCAGCCAGTCCCTTCCCGTTCAGTGACACCTGCGACAGCTGCGCAAGGAACGC
 CCGTCTGGCCAGCCAGATAGCCGCTGCTCCTGGAGTTCAATCAGGGCACCGGACAGGTGGTCTTGACAAAAAGAACCGGGCGCCCTGCGCTGACAGCCGGAACACCGGC
 GGCATCAGAGCAGCCGATTGTCTGTGTGCCAGTCATAGCCGAATAGCCTCTCCACCAAGCGCGGAGAACCTGCGTGAATCCATCTTGTTCATCCCA**TTGGTCGATCGACAG**
 ATCTGCGAAAGCTCGAGAGAGATAGATTTGTAGAGAGAGACTGGTGAATTTAGCGTGTCCTTCCAAATGAAATGAACTTCCCTTATATAGAGGAAGGTTTCCGAAGGATAGTGGGAT
 TGTGCGCTATCCCTTACGCTCAGTGGAGATACACATCAATCCACTTGGCTTGAAGACGTGGTGGAAACGTCTTCTTTCCACGATGCTCCTCGTGGGTGGGGTCCATCTTTGGGAC
 CACTGTGGCCAGAGGCATCTTGAACGATAGCCTTTCCTTTATCGCAATGATGGCATTGTAGGTGCCACCTTCTTTTCTACTGTCTTTTATGAAAGTACAGATAGCTGGGCAATG
 GAATCCGAGGAGTTCCTCCGATATTAACCTTGTGTAAGTCTCAATAGCCCTTTGGTCTTCTAGACTGATCTTTGATATTCTTGGAGTAGACGAGAGTGTCTGCTCCACCATG
 TTATCAGATCAATCCACTTGGTTGAAGACGTGGTGGAAAGCTCTTTTCCACGATGCTCCTCGTGGTGGGGTCCATCTTTGGGACCAGTTCGGCAGAGGATCTTGAACGA
 TAGCCTTTCCTTTATCGCAATGATGCAATTTGTAGGTGCCACTTCCCTTTTCTACTGTCTTTTATGATGAAGTACAGATAGCTGGCAATGGAATCCGAGGAGTTTCCCGATATTAC
 CCTTTGTGAAAAGTCTCAATAGCCCTTTGGTCTTCTGAGACTGTATCTTTGATATCTTTGGAGTAGACGAGAGTGTCTGCTCCACCATGTGGCAAGCTGCTCTAGCCAATACGCA
 AACCGCTCTCCCGCGCTTGGCCGATTCAATATGACAGTGGCACGACAGGTTTCCCGACTGGAAAGCGGGCAGTGGAGCAGCAACGCAATTAATGTGAGTTAGCTCACTCATTAGGC
 ACCCAGGCTTACACTTTATGCTTCCGGCTCGTATGTTGTGGAATTTGAGCGGATAACAATTTACACAGGAAACAGCTATGACCATGATTACGAATTCGAGCTCGGTACCCCG
 GGATCCTCTAGAGTTCAGCTCAGGATGCAAGCTGGCACTGGCCGCTGTTTTACAACGTCGTGACTGGGAAACCTGGCGTTACCAACTTAATCGCCTTGCAGCACATCCCGCT
 TTCGCCAGCTGGCGTAATAGCGAAGAGGCCGACCGATCGCCCTTCCCAACAGTTGGCAGCCTGAATGGCGAATGCTAGAGCAGCTTGGAGCTTGGATCAGATTGTGTTCCCGCC
 TTCAGTTAACTATCAGTGTTTGACAGGATATATGGCGGTAAACCTAAGAGAAAAGAGCGGTTATTAGAAATACGGATATTTAAAAGGGCGTAAAAGGTTTATCCGTTCTGCCA
 TTTGTATGTG



RB
 gtaaacctaagagaaaagagcgttta
 LB
 tggcaggatataattgtggtgtaaaca
 35Stem (RC)
 ctgaattaacgccgaattaattcgggggactcggatTTtagTactggatTTTggtTTtaggaATTAGAAATTTATTGATAGAAGTATTTTACAATACAAATACATACTAAGGGTTTTCTTATAT
 CTTATATGCTCAACACATGAGCGAAACCTATAGGAACCTAATTCCTTATCTGGAACTACTCACACATTATTTAGGAGAACTCGAGCTTGTGCGATCGACTCTAGCTAGAGGATCGATCCGA
 nptII (RC)
 gaagaactgcaagaagcgatagaagcgcgctcgaactcgggagcgcgataaccgaaagcagaggaagcgcgacccattcgcgccaagctctcagcaatcacgggtagccaacgctatgctctgatagcgtccacaccacccg
 gccacagtcgatgaatccgaaaaagcggcatttccaccatgatattcggcaagcaggcatccatgtgtcagcagagatcctcgcgctgagcctgagcctgccaagctgctgctcgtccacacccgacccg
 tgatcgacaagaccggctccatccgagtagctcctcgcgtagcagatttccgttgggtgcaatgggcaggtagccgatcaagcgtatcagcggccgcatgcatcagccatgatgatacttctcggcaggagcaaggtgagatgacaggagatcct
 gcccggcactctgcccaatgacagcagctccctccgcttcagtgacaacgtcagcacagctcgcgaaggaaccccctgctggcagccacgatagccgctctcctcctgctgagttcaatcaggccacggagagctgcttgacaaaaaagaac
 cggcgcccctgcctgacagccggaacacggcgcacagagacccgattctgtgtgcccagtcagccgaatgacctccaccaacggcgccgagaacctgctgcaatccatctgttcaatccccat
 Db135S (RC)
 agagatagatttgttagagagagactggtgatttcagcgtgtcctctcacaatgaaatgaacttcccttatatagaggaaggtcttgcgaaaggtatggtggattgtgctcctcccttaac
 gtcagtggagatatacatcaatccacttgccttgaagacgtggttggaaacgtctctttttccacagatgctcctcgtgggtgggggtccatctttgggaccactgtcggcagagga
 tcttgaacgatagccttcccttcttcttcgcaatgatggcatttggatggtgccaacttctttctactgctcttttgatgaaagtgacagatagctgggcaatggaaatccgagaggtttc
 ccgatattaccctttgtgaaaagtctcaatagcccttggctcttggagactgtatctttgatattctttggagttagacgagagtgtcgtgctccaccatggttatcacataatccac
 ttgctttgaagacgtggttgaacgtctctctttttccacgatgctcctcgtgggtgggggtccatctttgggaccactgtcggcagaggaatcttgaacgatagccttcccttctctg
 caatgatggcattttaggtgcccacttctttctactgtccttttgatgaaagtacagatagctgggcaatggaatccgaggaggttcccgatattaccctttgttgaaggtct
 caatagcccttggctcttgagactgtatctttgatattctttggagttagacgagaggtgctg