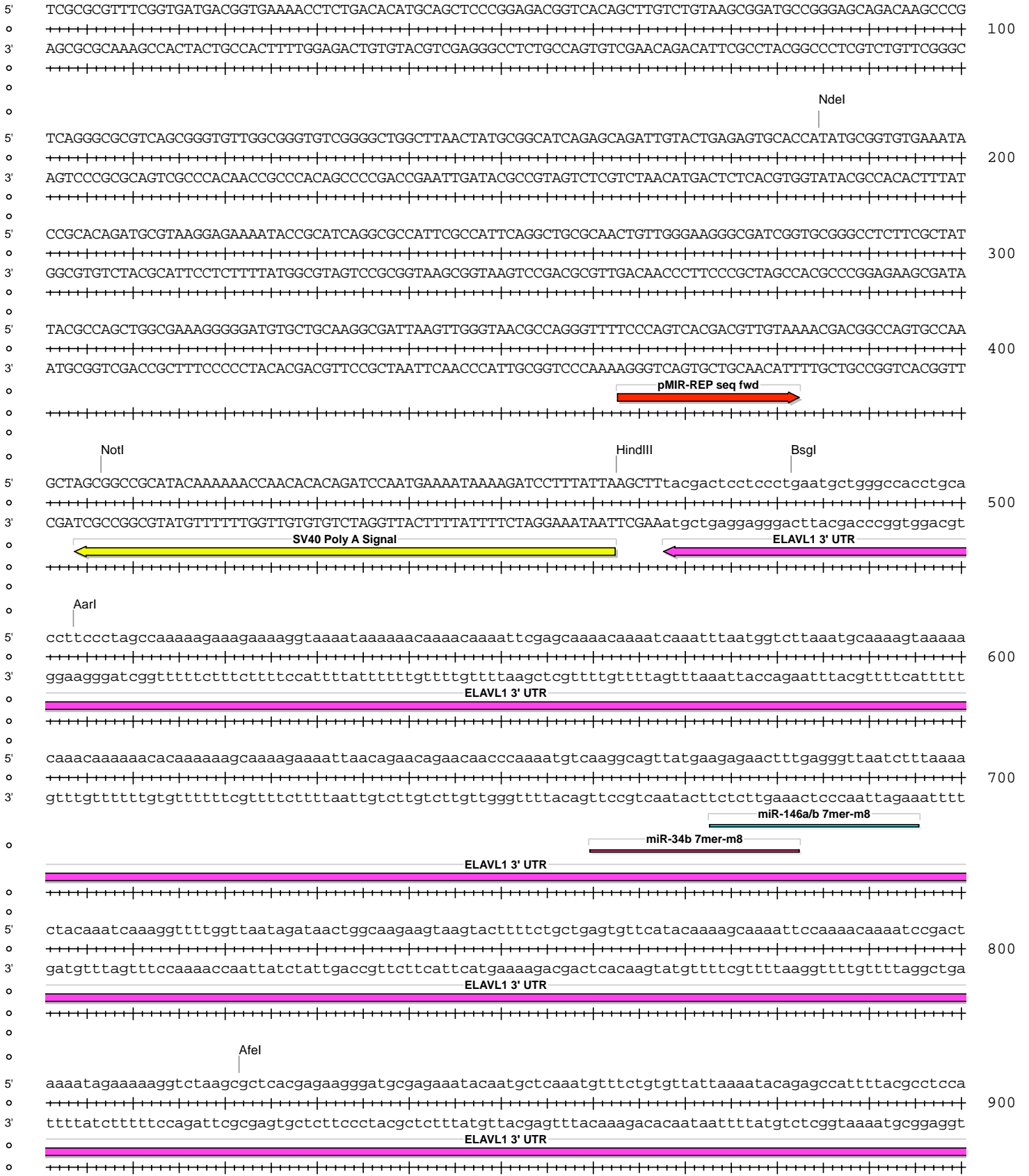


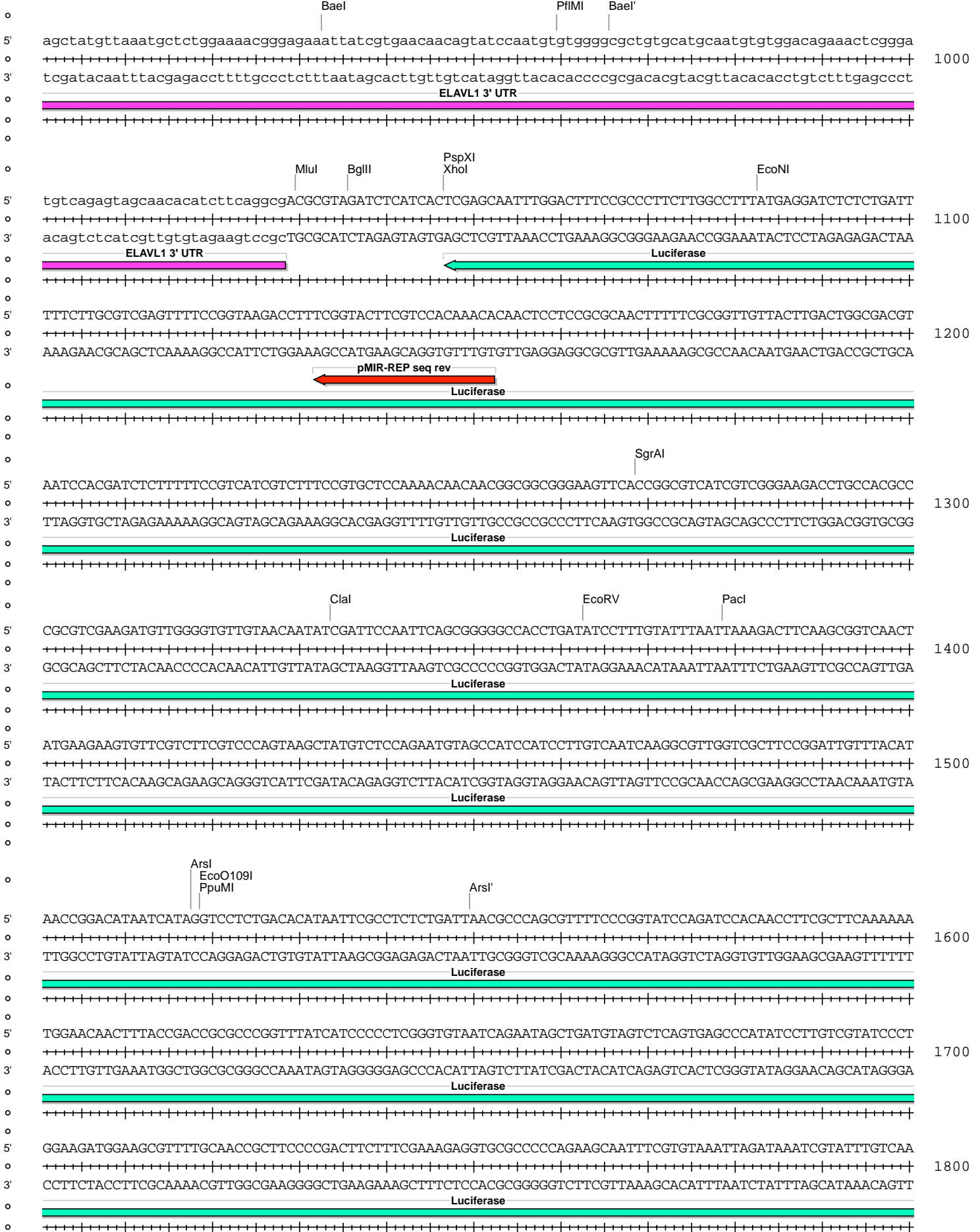
pMIR-REP-dCMV-ELAVL1 3' UTR (733-1293) wt

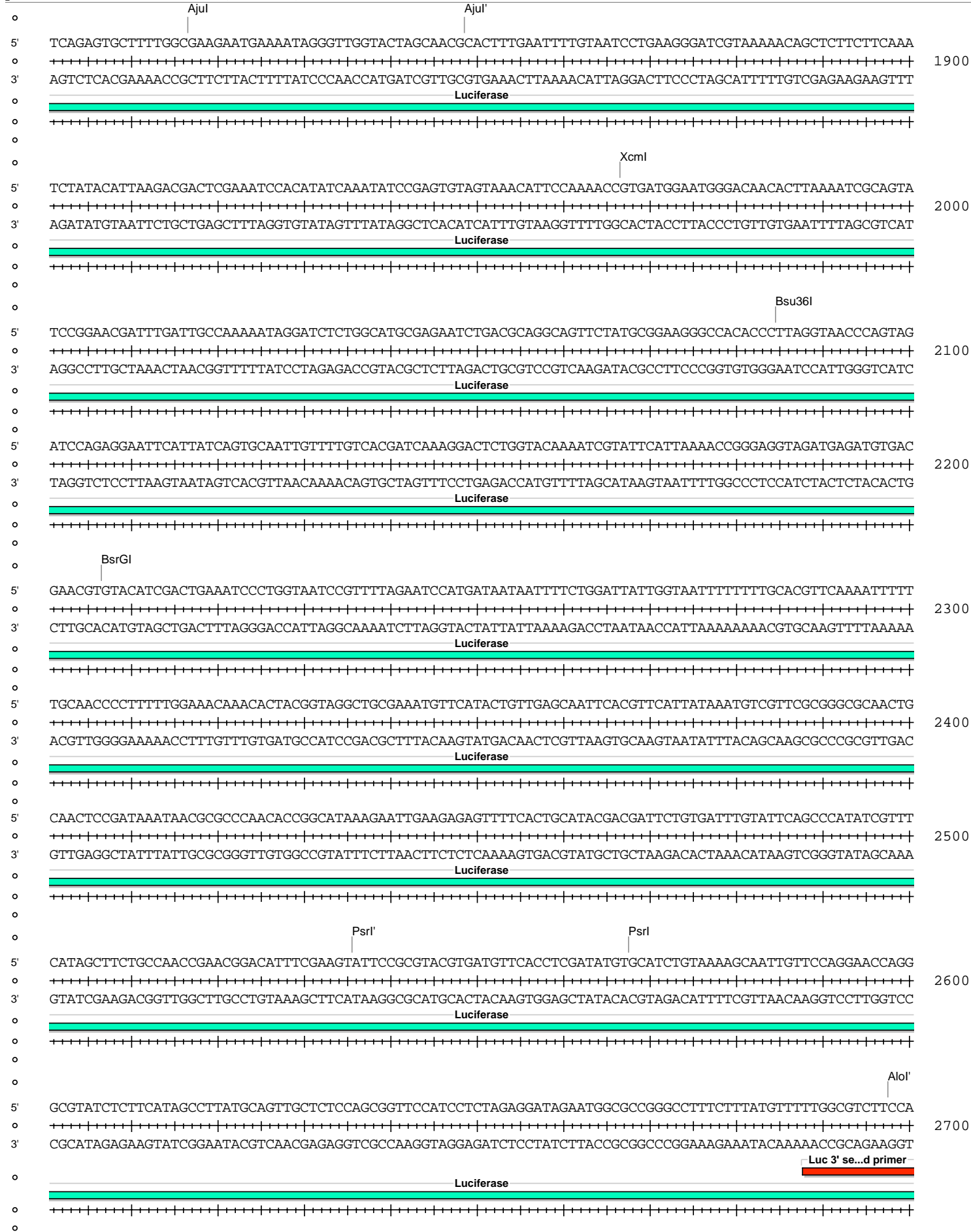
Absent Sites	0	AbsI,AflIII,AleI,Apal,AscI,AsiSI,BarI,BarI',BbvCI,BclI,BlpI,BmgBI,Bpu10I,BstXI,BstZ17I,EcoICRI,Fall,Fall',FseI,FspAI,MauBI,MreI,Nael,NgoMIV,Nrul,PasI,PmeI,PmlI,PshAI,PspOMI,SacI,SanDI,SgrDI,SpeI,SrfI,Swal
AarI	1	504 (6641)
Acc65I	1	2971 (6641)
AccI	1	6106 (6641)
AfeI	1	822 (6641)
AgeI	1	6274 (6641)
AhdI	1	4328 (6641)
AjuI	1	1817 (6641)
AjuI'	1	1849 (6641)
Alol	1	2730 (6641)
Alol'	1	2698 (6641)
AlwNI	1	3851 (6641)
ArsI	1	1518 (6641)
ArsI'	1	1550 (6641)
AvrII	1	6325 (6641)
BaeI	1	933 (6641)
BaeI'	1	966 (6641)
BamHI	1	2706 (6641)
BglIII	1	1036 (6641)
BsaBI	1	5490 (6641)
BsgI	1	482 (6641)
BsrGI	1	2207 (6641)
BssHII	1	5758 (6641)
Bsu36I	1	2085 (6641)
BtgZI	1	2956 (6641)
Clal	1	1334 (6641)
CspCI	1	2920 (6641)
CspCI'	1	2885 (6641)
DraIII	1	5649 (6641)
EcoNI	1	1083 (6641)
EcoO109I	1	1519 (6641)
EcoRV	1	1363 (6641)
HindIII	1	463 (6641)
HpaI	1	5389 (6641)
KpnI	1	2975 (6641)
MluI	1	1030 (6641)
MscI	1	5842 (6641)
NdeI	1	185 (6641)
NotI	1	407 (6641)
PacI	1	1379 (6641)
PciI	1	3435 (6641)
PfIMI	1	960 (6641)
PpuMI	1	1519 (6641)
PspXI	1	1047 (6641)
Psrl	1	2568 (6641)
Psrl'	1	2536 (6641)
PstI	1	6297 (6641)
RsrII	1	6098 (6641)
SacII	1	6005 (6641)
Sall	1	6105 (6641)
SbfI	1	6297 (6641)
SfiI	1	6379 (6641)
SgrAI	1	1269 (6641)
SnaBI	1	2954 (6641)
SspI	1	5132 (6641)
Tth111I	1	6174 (6641)
XcmI	1	1967 (6641)
XhoI	1	1047 (6641)
XmnI	1	4927 (6641)

pMIR-REP-dCMV-ELAVL1 3' UTR (733-1293) wt

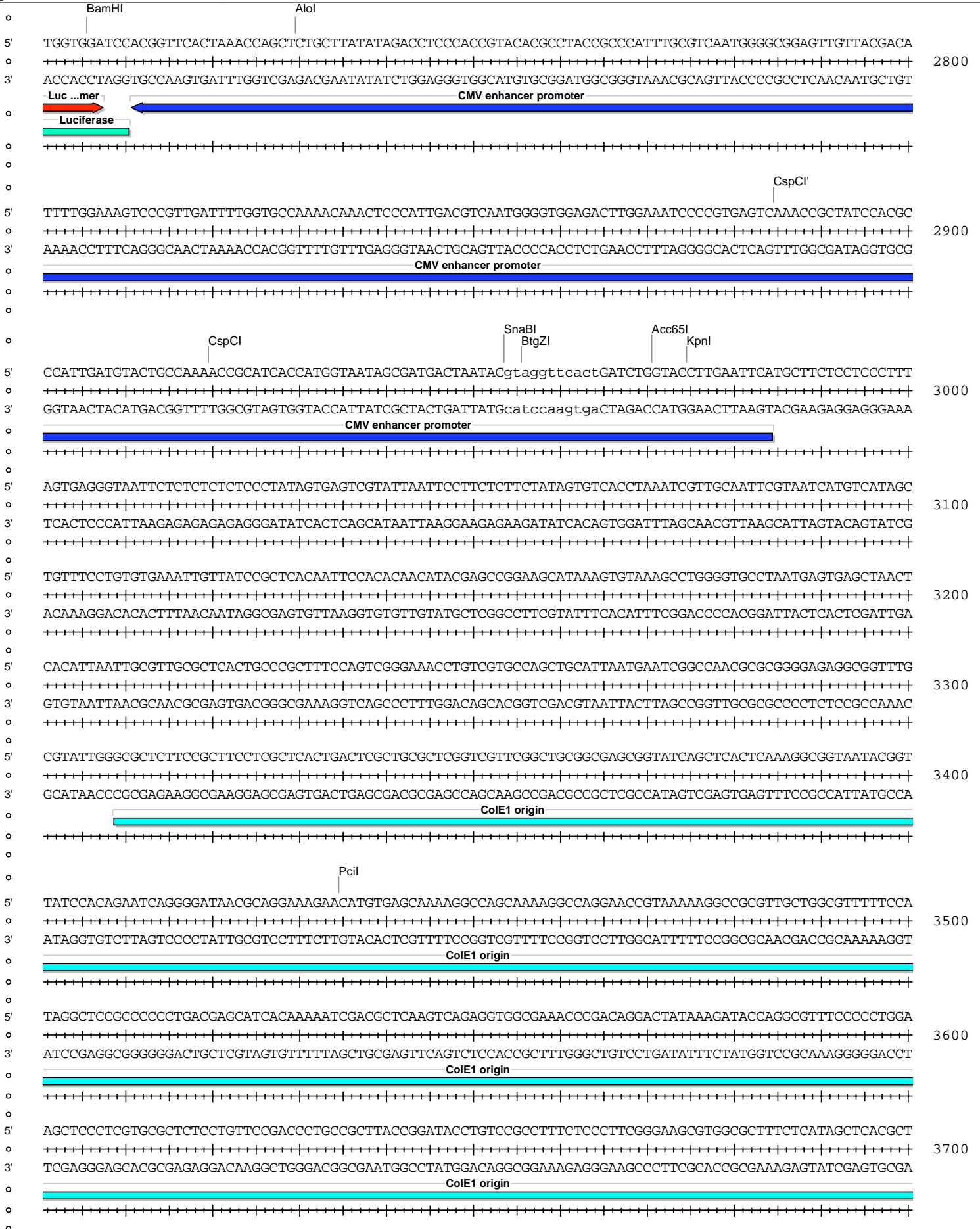


pMIR-REP-dCMV-ELAVL1 3' UTR (733-1293) wt





pMIR-REP-dCMV-ELAVL1 3' UTR (733-1293) wt



pMIR-REP-dCMV-ELAVL1 3' UTR (733-1293) wt

5' GTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAGCCCACCGCTGCGCCTTATCCGTAACATATCG 3800
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' CATCCATAGAGTCAAGCCACATCCAGCAAGCGAGGTTGACCCGACACACGTGCTTGGGGGCAAGTCGGGCTGGCGACGCGGAATAGGCCATTGATAGC
 ColE1 origin

5' TCCTGAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTC 3900
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' AGAACTCAGGTTGGGCCATTCTGTGCTGAATAGCGGTGACCGTCGTCGGTGACCATTGTCTTAATCGTCTCGCTCCATACATCCGCCACGATGTCTCAAG
 ColE1 origin

5' TTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTT 4000
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' AACTTCACCACCGGATTGATGCCGATGTGATCTTCTTGTCTATAAACCATAGACGCGAGACGACTTCGGTCAATGGAAGCCTTTTTCTCAACCATCGAGAA
 ColE1 origin

5' GATCCGGCAAAAAAACACCGCTGGTAGCGGTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTT 4100
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' CTAGGCCGTTTTTTTGGTGGCGACCATCGCCACCAAAAAACAAACGTTCTGTCGCTAATGCGCGTCTTTTTTCTTAGAGTCTTCTTAGGAACTAGAA
 ColE1 origin

5' TTCTACGGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTTCATGAGATTATCAAAAAGGATCTTCACCTAGATCCTTTTAAATTA 4200
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' AAGATGCCCCAGACTGCGAGTCACTTGTCTTTGAGTGAATTCCTAAAACAGTACTCTAATAGTTTTTTCTAGAAGTGGATCTAGGAAAATTTAATT
 ColE1 origin

5' AAATGAAGTTTTAAATCAATCTAAAGTATATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTAT 4300
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' TTTACTTCAAATTTAGTTAGATTTTATATATACTCATTGGAACCAGACTGTCAATGGTTACGAATTAGTCACTCCGTTGGATAGAGTCGCTAGACAGATA
 AMPr

5' TTCGTTTCATCATAGTTGCCTGACTCCCGTCGTTGATAGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGTGCAATGATACCGCGAGACCC 4400
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' AAGCAAGTAGGTATCAACGGACTGAGGGGCAGCACATCTATTGATGCTATGCCCTCCCGAATGGTAGACCGGGGTCACGACGTTACTATGGCGCTCTGGG
 AMPr

5' ACGCTCACCGGCTCCAGATTTATCAGCAATAAACCAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCTGCAACTTTATCCGCTCCATCCAGTCTATT 4500
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' TGCGAGTGGCCGAGGTCTAAATAGTCGTTATTGGTTCGGTTCGGCTTCCCGGCTCGCGTCTTACCAGGACGTTGAAATAGGCGGAGGTAGGTCAGATAA
 AMPr

5' AATTGTTGCCGGAAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTTTGCACACGTTGTTGCCATTGCTACAGGCATCGTGGTGTACGCTCGTCTGTTG 4600
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' TTAACAACGGCCCTTCGATCTCATTCAAGCGGTCAATTTATCAAACGCGTTGCAACAACGGTAACGATGTCCGTAGCACCACAGTGCAGACAGCAAAC
 AMPr

5' GTATGGCTTCATTCAGCTCCGGTTCCTCAACGATCAAGGCGAGTTACATGATCCCCATGTTGTGCAAAAAAGCGGTTAGCTCCTTCGGTCTCCGATCGT 4700
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' CATACCGAAGTAAGTCGAGGCCAAGGGTTGCTAGTTCGGCTCAATGTACTAGGGGTACAACACGTTTTTTTCGCCAATCGAGGAAGCCAGGAGGCTAGCA
 AMPr

pMIR-REP-dCMV-ELAVL1 3' UTR (733-1293) wt

5' TGTCAGAAGTAAGTTGGCCGAGTGTATCACTCATGGTTATGGCAGCACTGCATAATTCTCTTACTGTCATGCCATCCGTAAGATGCTTTTCTGTGACT
 4800
 3' ACAGTCTTCATTCAACCGGCGTCACAATAGTGAAGTACCAATACCGTTCGTGACGTATTAAGAGAATGACAGTACGGTAGGCATTCTACGAAAAGACACTGA

AMPr

5' GGTGAGTACTCAACCAAGTCATCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTCAATACGGGATAATACCGGCCACATAGCAGAA
 4900
 3' CCACTCATGAGTTGGTTCAGTAAGACTCTTATCACATACGCCGCTGGCTCAACGAGAACGGGCGCAGTTATGCCCTATTATGGCGGGTGTATCGTCTT

AMPr

XmnI

5' CTTTAAAAGTGCTCATCATTGGAAAACGTTCTTCGGGGCGAAAACCTCAAGGATCTTACCCTGTTGAGATCCAGTTCGATGTAACCCACTCGTGCACC
 5000
 3' GAAATTTTCACGAGTAGTAACCTTTTGAAGAAGCCCCGCTTTTGAAGAGTTCCTAGAATGGCGACAACCTCTAGGTCAAGCTACATTGGGTGAGCACGTGG

AMPr

5' CAACTGATCTTCAGCATCTTTTACTTTTACCAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCAAAATGCCGCAAAAAGGGAAATAAGGGCGACACGGAAA
 5100
 3' GTTGACTAGAAGTCGTAGAAAATGAAAGTGGTCGAAAGACCCACTCGTTTTTGTCTTCCGTTTTACGGCGTTTTTCCCTTATTCCCGCTGTGCCTTT

AMPr

SspI

5' TGTGAATACTCATACTTCCCTTTTCAATATATTGAAGCATTATCAGGGTTATTGTCTCATGAGCGGATACATATTTGAATGTATTTAGAAAAATA
 5200
 3' ACAACTTATGAGTATGAGAAGGAAAAAGTTATAATAACTTCGTAATAGTCCCAATAACAGAGTACTCGCCTATGTATAAACTTACATAAACTTTTTTAT

AMPr

5' AACAAATAGGGTTCCGCGCACATTTCCCCGAAAAGTCCACCTGACGTCTAAGAAACCATTATTATCATGACATTAACCTATAAAAATAGGCGTATCAC
 5300
 3' TTGTTTATCCCAAGGCGCGTAAAGGGGCTTTTACCGTGGACTGCAGATTCTTTGGTAATAATAGTACTGTAATTGGATATTTTATCCGCATAGTG

HpaI

5' GAGATTGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAAT
 5400
 3' CTCTAACGTCACCTTTTTTACGAAATAAACACTTTAAACACTACGATAACGAAATAAACATTGGTAATATTGACGCTTATTGTTCAATTGTTGTTGTTA

SV40 Poly A

BsaBI

5' TGCATTCAATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTTAAAGCAAGTAAAACCTCTACAAATGGGTATGGCTGATTATGATCCTCTAG
 5500
 3' ACGTAAGTAAAATACAAAGTCCAAGTCCCCCTCCACACCCTCCAAAAAATTCGTTCAATTTGGAGATGTTACACCATAACCGACTAATACTAGGAGATC

5' AGTCGGTGGGCTCGGGGGCGGGTGCGGGGTCCGGGGCCGCCCCGGGTGGCTTCGGTCCGAGCCATGGGGTCGTGCGCTCCTTTCCGGTCCGGCGCTGC
 5600
 3' TCAGCCACCGGAGCCCCCGCCACGCCCCAGCCCGCCCGGGGGCCACCGAAGCCAGCCTCGGTACCCACGACGCGAGGAAAGCCAGCCCCGCGACG

DrallI

5' GGGTCGTGGGGCGGGCGTCAAGCACCAGGCTTGCAGGTCATGCACCAGGTGCGCGTCCCTTCGGGCACCTCGACGTCGGCGGTGACGGTGAAGCCGAGCC
 5700
 3' CCCAGCACCCCGCCGAGTCCGTGGCCCGAACGCCAGTACGTGGTCCACGCGCCAGGAAGCCCGTGGAGCTGCAGCCGCCACTGCCACTTCGGCTCGG

Puromycin resistance

