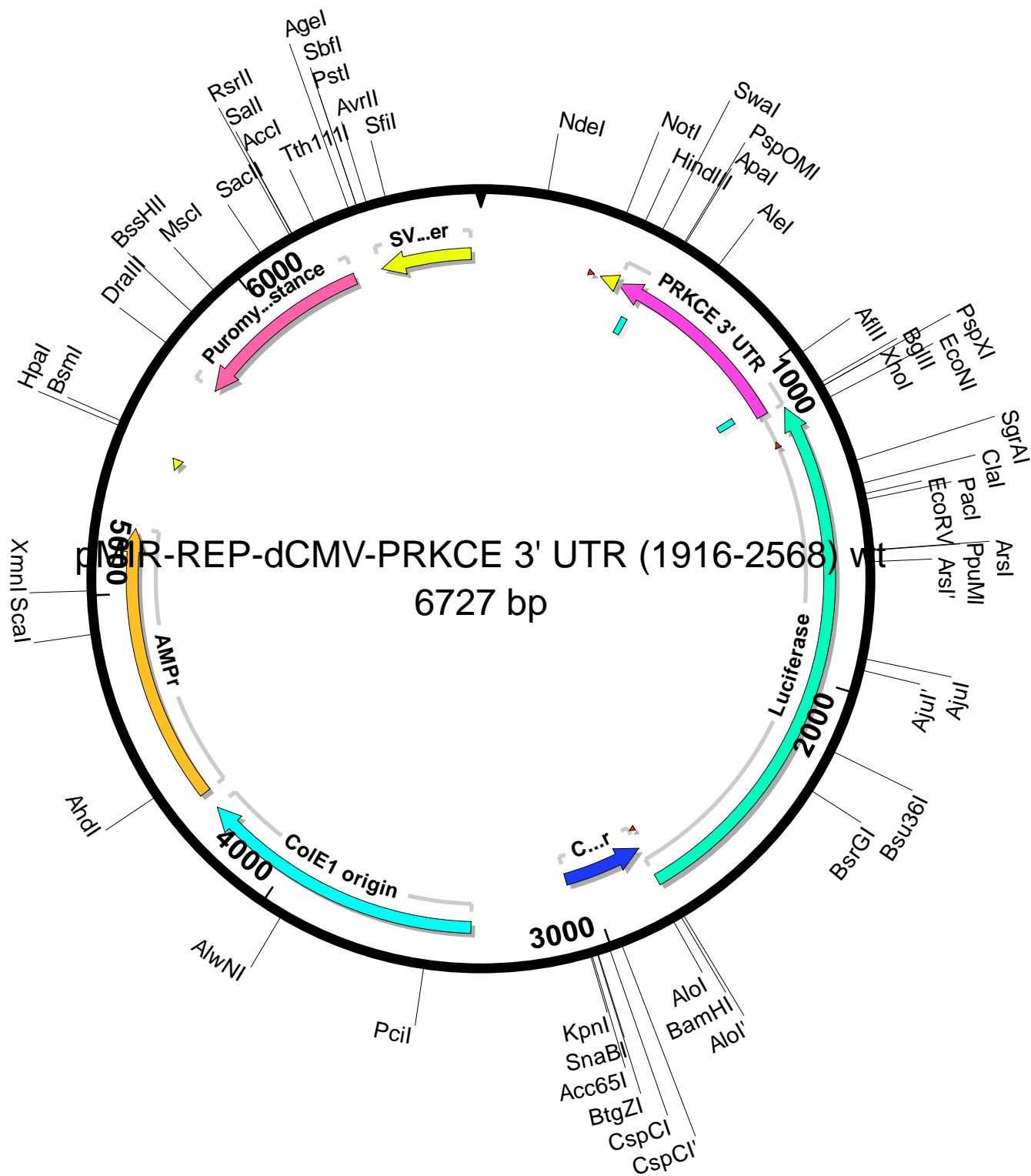


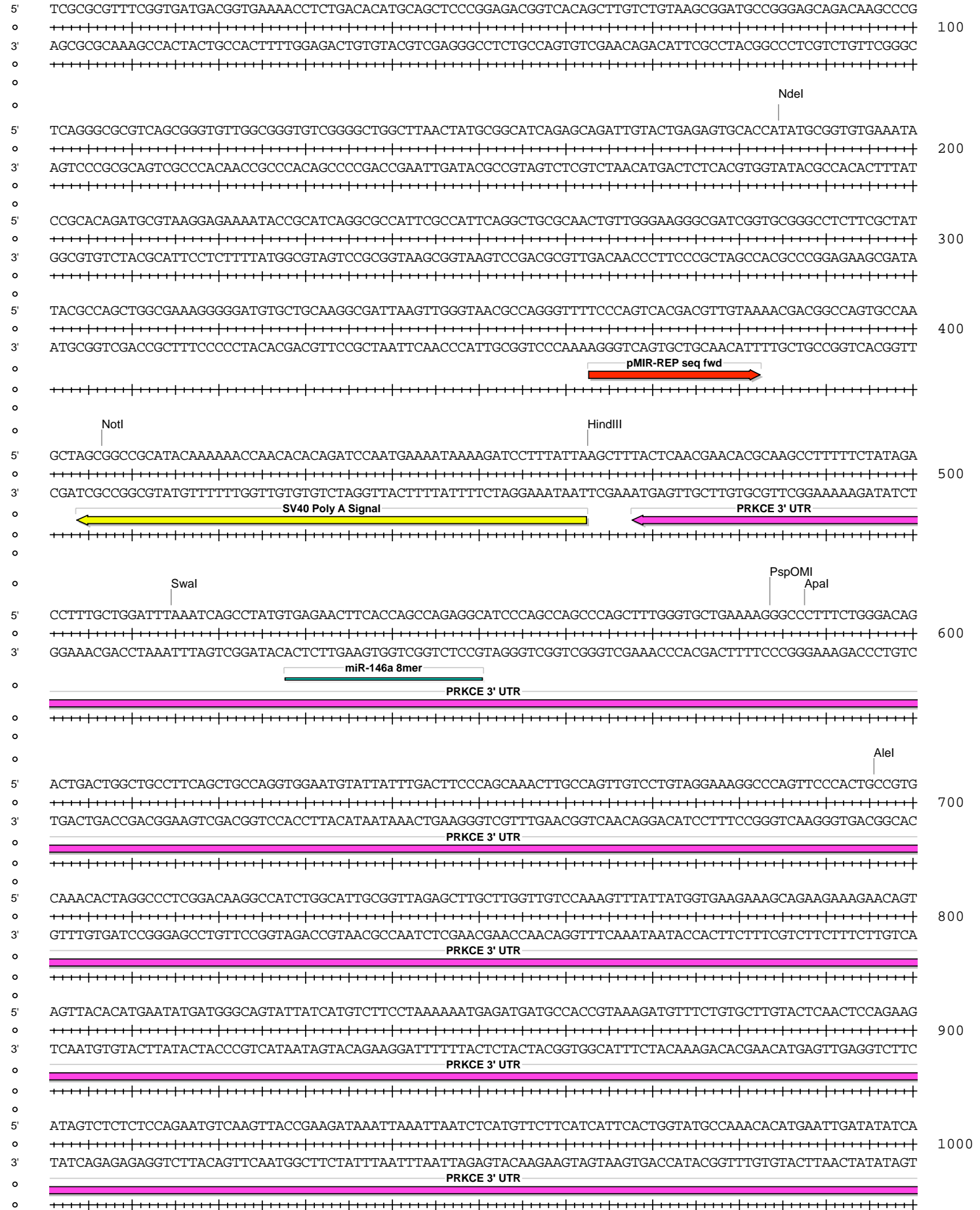
pMIR-REP-dCMV-PRKCE 3' UTR (1916-2568) wt



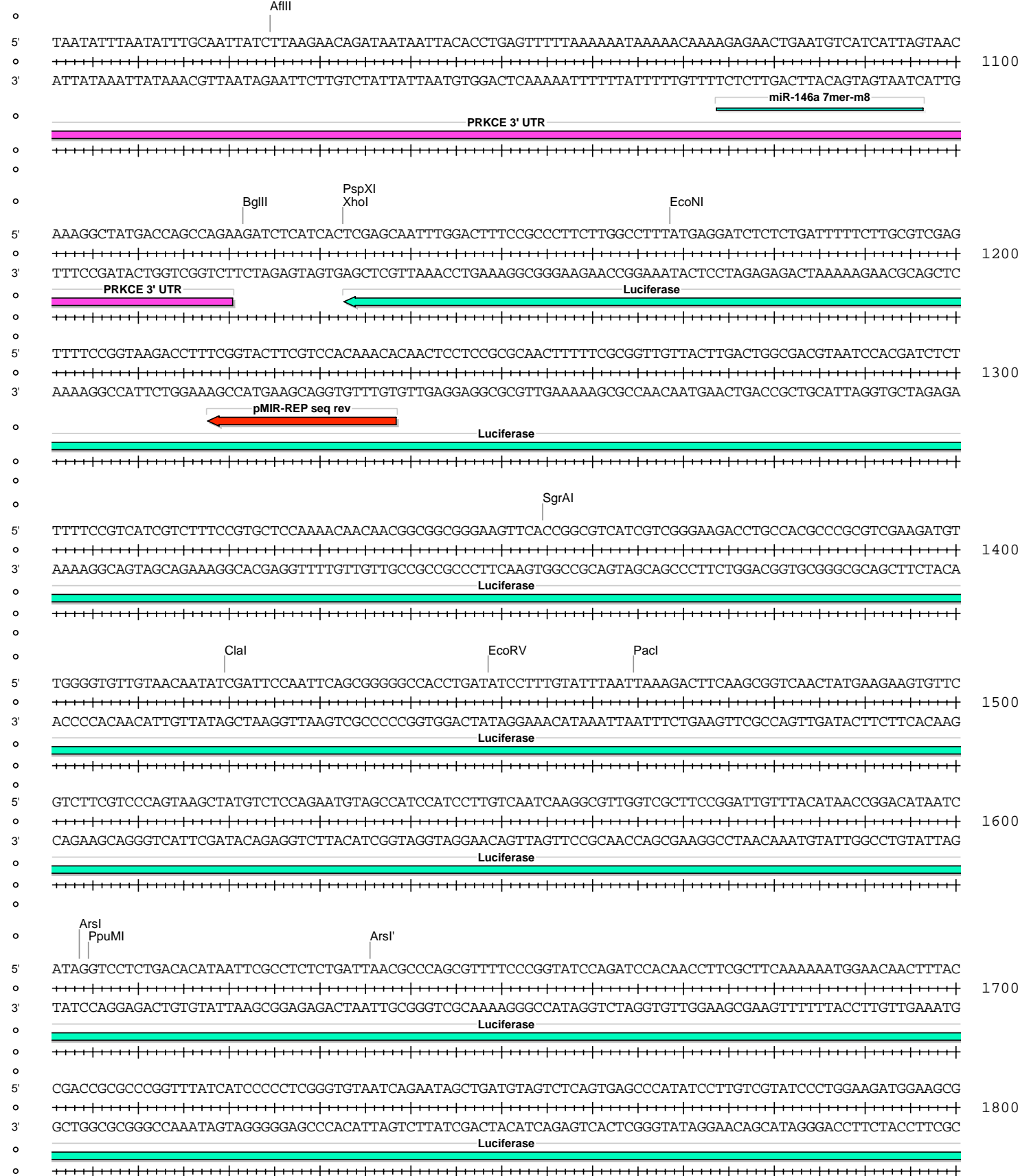
## pMIR-REP-dCMV-PRKCE 3' UTR (1916-2568) wt

Absent Sites	0	AarI,AbstI,AfeI,AscI,AsiSI,BaeI,BaeI',BarI,BarI',BbvCI,BclI,BplI,BmgBI,Bpu10I,BsgI,BstXI,BstZ17I,EcoICRI,Fall,Fall',FseI,FspAI,MauBI,MluI,MreI,NaeI,NgoMIV,NruI,PasI,PfIMI,PmeI,PmlI,PshAI,SacI,SanDI,SgrDI,SpeI,SrfI
Acc65I	1	3057 (6727)
AccI	1	6192 (6727)
AfIII	1	1025 (6727)
AgeI	1	6360 (6727)
AhdI	1	4414 (6727)
AjuI	1	1903 (6727)
AjuI'	1	1935 (6727)
AleI	1	696 (6727)
Alol	1	2816 (6727)
Alol'	1	2784 (6727)
AlwNI	1	3937 (6727)
ApaI	1	588 (6727)
ArsI	1	1604 (6727)
ArsI'	1	1636 (6727)
AvrII	1	6411 (6727)
BamHI	1	2792 (6727)
BglIII	1	1122 (6727)
BsmI	1	5489 (6727)
BsrGI	1	2293 (6727)
BssHII	1	5844 (6727)
Bsu36I	1	2171 (6727)
BtgZI	1	3042 (6727)
ClaI	1	1420 (6727)
CspCI	1	3006 (6727)
CspCI'	1	2971 (6727)
DraIII	1	5735 (6727)
EcoNI	1	1169 (6727)
EcoRV	1	1449 (6727)
HindIII	1	463 (6727)
HpaI	1	5475 (6727)
KpnI	1	3061 (6727)
MscI	1	5928 (6727)
NdeI	1	185 (6727)
NotI	1	407 (6727)
PacI	1	1465 (6727)
PciI	1	3521 (6727)
PpuMI	1	1605 (6727)
PspOMI	1	584 (6727)
PspXI	1	1133 (6727)
PstI	1	6383 (6727)
RsrII	1	6184 (6727)
SacII	1	6091 (6727)
SalI	1	6191 (6727)
SbfI	1	6383 (6727)
Scal	1	4894 (6727)
SfiI	1	6465 (6727)
SgrAI	1	1355 (6727)
SnaBI	1	3040 (6727)
Swal	1	515 (6727)
Tth111I	1	6260 (6727)
XhoI	1	1133 (6727)
XmnI	1	5013 (6727)

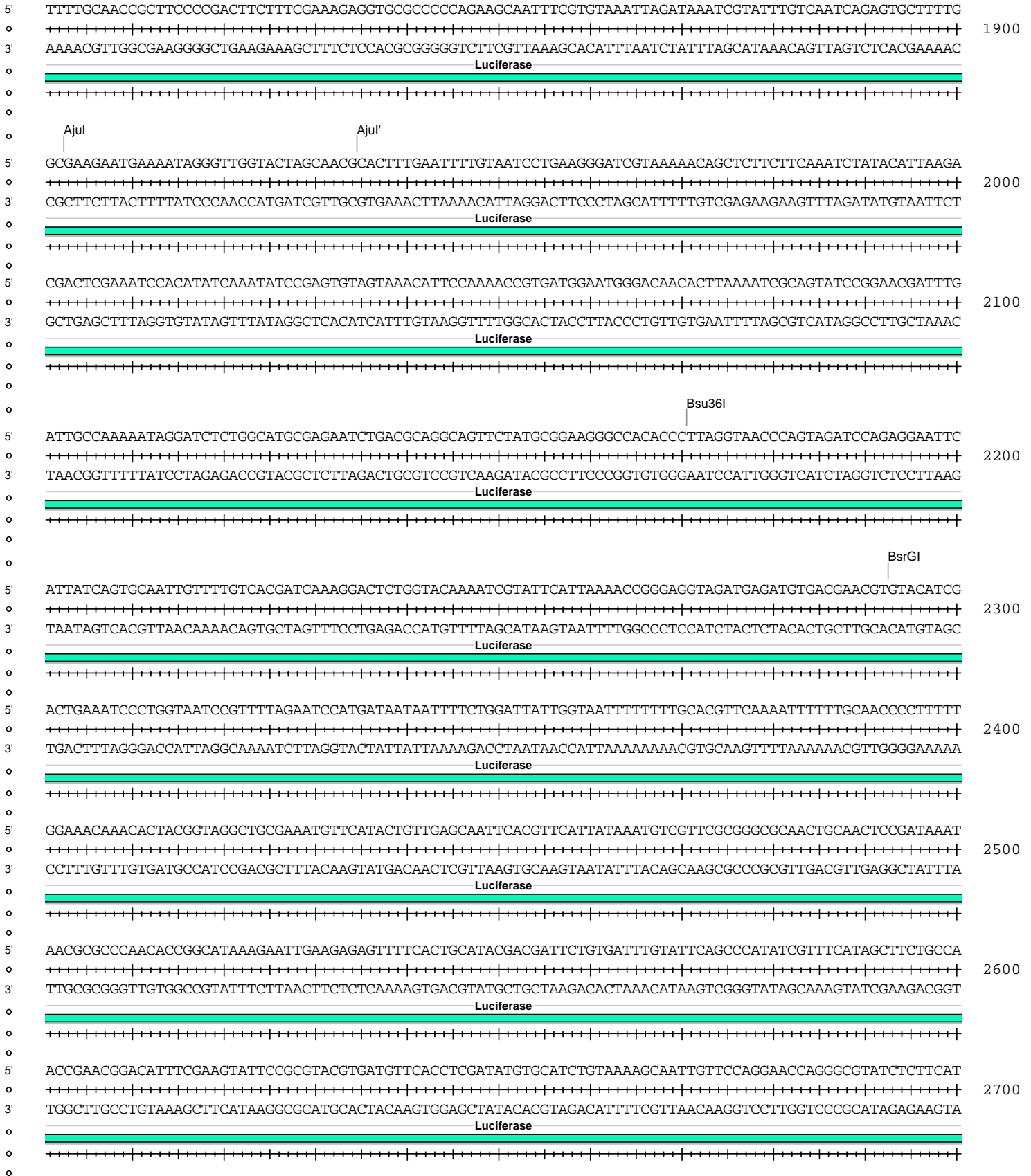
pMIR-REP-dCMV-PRKCE 3' UTR (1916-2568) wt



pMIR-REP-dCMV-PRKCE 3' UTR (1916-2568) wt



pMIR-REP-dCMV-PRKCE 3' UTR (1916-2568) wt





pMIR-REP-dCMV-PRKCE 3' UTR (1916-2568) wt

5' CTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGCGCTTCCCCCTGGAAGCTCCCTCGTGCG 3700  
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
 3' GACTGCTCGTAGTGTTTTCTAGCTGCGAGTTCAGTCTCCACCGCTTTGGGCTGTCTGATATTTCTATGGTCCGCAAAGGGGACCTTCGAGGGAGCACGC  
 ColE1 origin

5' CTCTCCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGT 3800  
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
 3' GAGAGGACAAGGCTGGGACGGCGAATGGCCTATGGACAGGCGGAAAGAGGGAAGCCCTTCGCACCGCGAAAGAGTATCGAGTGCACATCCATAGAGTCA  
 ColE1 origin

5' TCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACC 3900  
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
 3' AGCCACATCCAGCAAGCGAGGTTTCGACCCGACACAGTGTCTGGGGGGCAAGTCGGGCTGGCGACGCGGAATAGGCCATTGATAGCAGAACTCAGGTTGG  
 ColE1 origin

CGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCC  
 AlwNI  
 5' CGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCC 4000  
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
 3' GCCATTCTGTGCTGAATAGCGGTGACCGTCTGTCGGTGACCATTGTCTAATCGTCTCGCTCCATACATCCGCCACGATGTCTCAAGAACTCACCACCGG  
 ColE1 origin

5' TAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAGAGTTGGTAGCTCTTGATCCGGCAAAAA 4100  
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
 3' ATTGATGCCGATGTGATCTTCTGTGCATAAACCATAGACGCGAGACGACTTCGGTCAATGGAAGCCTTTTTCTCAACCATCGAGAACTAGGCCGTTTTTT  
 ColE1 origin

5' ACCACCGCTGGTAGCGGTGGTTTTTTTGTTCGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTG 4200  
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
 3' TGGTGGCGACCATCGCCACCAAAAAACAAACGTTTCGTCTAATGCGCGTCTTTTTTTCTAGAGTCTTCTAGGAACTAGAAAAGATGCCCCAGAC  
 ColE1 origin

5' ACGCTCAGTGAACGAAAACACGTTAAGGGATTTTGGTCATGAGATTATCAAAAAGGATCTTCACCTAGATCCTTTTAAATAAAAATGAAGTTTTAA 4300  
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
 3' TGCGAGTCACTTGTCTTTGAGTGAATTCCTAAAACAGTACTCTAATAGTTTTTCTAGAAAGTGGATCTAGGAAAATTTAATTTTTACTTCAAAATT  
 ColE1 origin

5' ATCAATCTAAAGTATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTTCGTTTCATCCATA 4400  
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
 3' TAGTTAGATTTTCATATATACTCATTGAAACAGACTGTCAATGGTTACGAATTAGTCACTCCGTGGATAGAGTCGCTAGACAGATAAAGCAAGTAGGTAT  
 AMPr

5' GTTGCTGACTCCCGTCGTTGAGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGATACCGGAGACCCACGCTCACCGGCTC 4500  
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
 3' CAACGACTGAGGGGAGCAGACATCTATTGATGCTATGCCCTCCCGAATGGTAGACGGGGTACGACGTTACTATGGCGCTCTGGGTGCGAGTGGCCGAG  
 AMPr

5' CAGATTTATCAGCAATAAACAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCTGCAACTTTATCCGCCTCCATCCAGTCTATTAATTGTGCCGGGA 4600  
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
 3' GTCTAAATAGTCGTTATTTGGTTCGGTCCGCCTTCCCGCTCGCGTCTTACCAGGACGTTGAAATAGGCGGAGGTAGGTACAGATAATTAACAACGGCCCT  
 AMPr

AhdI







pMIR-REP-dCMV-PRKCE 3' UTR (1916-2568) wt

5' AGCCATGGGGCGGAGAATGGGCGGAAGTGGGCGGAGTTAGGGGCGGGATGGGCGGAGTTAGGGGCGGGACTATGGTTGCTGACTAATTGAGATGCATGCT 6600  
o ++++++  
3' TCGGTACCCCGCCTCTTACCCGCCTTGACCCGCCTCAATCCCCGCCCTACCCGCCCTCAATCCCCGCCCTGATACCAACGACTGATTAACTCTACGTACGA  
o SV40 Promoter  
o ++++++  
o ++++++  
5' TTGCATACTTCTGCCTGCTGGGAGCCTGGGGACTTCCACACCTGGTTGCTGACTAATTGAGATGCATGCTTTCATACTTCTGCCTGCTGGGAGCCT 6700  
o ++++++  
3' AACGTATGAAGACGGACGACCCCTCGGACCCCTGAAAGGTGTGGACCAACGACTGATTAACTCTACGTACGAAACGTATGAAGACGGACGACCCCTCGGA  
o SV40 Promoter  
o ++++++  
o ++++++  
5' GGGGACTTTCACACCAATCTTTCGTC  
o ++++++  
3' CCCCTGAAAGGTGTGGTTAGAAAGCAG 6727  
o ++++++