

## pMIR-REP-dCMV-ST7L 3' UTR (844-2494) wt + down gDNA

Absent Sites	0	AarI,AbstI,AfeI,AfIII,Apal,AscI,AsiSI,BarI,BarI',BclI,BlpI,BmgBI,BstXI,BstZ17I,EcoICRI,FseI,FspAI,MauBI,MreI,NaeI,NgoMIV,NruI,PfiMI,PmeI,PmlI,PspOMI,SacI,SgrDI,SpeI,SrfI
Acc65I	1	4200 (7870)
AccI	1	7335 (7870)
AgeI	1	7503 (7870)
AhdI	1	5557 (7870)
AjuI	1	3046 (7870)
AjuI'	1	3078 (7870)
AleI	1	1858 (7870)
Alol	1	3959 (7870)
Alol'	1	3927 (7870)
AlwNI	1	5080 (7870)
ArsI	1	2747 (7870)
ArsI'	1	2779 (7870)
AvrII	1	7554 (7870)
BaeI	1	895 (7870)
BaeI'	1	928 (7870)
BamHI	1	3935 (7870)
BbvCI	1	916 (7870)
BssHII	1	6987 (7870)
BtgZI	1	4185 (7870)
Clal	1	2563 (7870)
CspCI	1	4149 (7870)
CspCI'	1	4114 (7870)
EcoRV	1	2592 (7870)
HindIII	1	463 (7870)
HpaI	1	6618 (7870)
KpnI	1	4204 (7870)
MluI	1	2259 (7870)
NdeI	1	185 (7870)
NotI	1	407 (7870)
PacI	1	2608 (7870)
PciI	1	4664 (7870)
PshAI	1	1302 (7870)
PspXI	1	2276 (7870)
Psrl	1	3797 (7870)
Psrl'	1	3765 (7870)
RsrII	1	7327 (7870)
SacII	1	7234 (7870)
Sall	1	7334 (7870)
SanDI	1	1539 (7870)
SfiI	1	7608 (7870)
SgrAI	1	2498 (7870)
SnaBI	1	4183 (7870)
SspI	1	6361 (7870)
Swal	1	1376 (7870)
Tth111I	1	7403 (7870)
XhoI	1	2276 (7870)
XmnI	1	6156 (7870)

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5' TCGCGCGTTTCGGTGTGACGGTGAAAACCTCTGACACATGCAGTCCCGGAGACGGTCACAGCTTGTCTGTAAGCGGATGCCGGGAGCAGACAAGCCCG  
 100  
 3' AGCGCGCAAAGCCACTACTGCCACTTTTGGAGACTGTGTACGTGAGGGCCTCTGCCAGTGTGGAACAGACATTTCGCCTACGGCCCTCGTCTGTTCCGGGC

NdeI

5' TCAGGGCGCGTCAGCGGGTGTGGCGGGTGTGCGGGCTGGCTTAACTATGCGGCATCAGAGCAGATTGTACTGAGAGTGCACCATATGCCGGTGTGAAATA  
 200  
 3' AGTCCCGCGCAGTCGCCACAACCGCCACAGCCCGACCGAATTGATACGCCGTAGTCTCGTCTAACATGACTCTCACGTGGTATACGCCACACTTTAT

5' CCGCACAGATGCGTAAGGAGAAAATACCGCATCAGGCGCCATTGCCATTTCAGGCTGCGCAACTGTTGGGAAGGGCGATCGGTGCGGGCCTCTTCGCTAT  
 300  
 3' GGCGTGTCTACGCATTCTCTTTATAGGCGTAGTCCGCGTAAGCGGTAAGTCCGACGCGTTGACAACCCTTCCCGTAGCCACGCCGGAGAAGCGATA

5' TACGCCAGCTGGCGAAAGGGGATGTGTGCAAGGCGATTAAAGTTGGGTAAAGCCAGGGTTTTCCAGTCACGACGTTGTAACAAACGACGGCCAGTGCCAA  
 400  
 3' ATGCGGTGACCGCTTCCCTTACACGACGTTCCGCTAATTCAACCCATTGCGGTCCCAAAGGGTCAGTGTGCAACATTTTGTGCGGGTACGCGTT

pMIR-REP seq fwd

NotI HindIII

5' GCTAGCGGCCGCATACAAAAACCAACACACAGATCCAATGAAAATAAAGATCCTTTATTAAGCTTaccacggaggttatgtggtcccaaagggaatga  
 500  
 3' CGATCGCCGGCGTATGTTTTTGGTGTGTGTCTAGGTTACTTTTTATTTTCTAGGAAATAAATCGAAtggtgctccaataacaccagggttttcttact

SV40 Poly A Signal ST7L downstream gDNA

5' tggccaagcaattaatTTTTCTCTAGTtcttagcttctgattgattggctttacacaactggcatttagtctgcattacacaaatagacacta  
 600  
 3' accggttcgtaattaaaaaggaggatcaagaatcgaacgaagacgtaactaaccgaaatgtgtgaccgtaaatcagacgtaatgtgtttatctgtgat

ST7L downstream gDNA

5' atttatTTGGAACAAGCAGCAAAATGAGAACTTTATTTGGTGCAGTCAGGGCTCCATTTAGTTCCTCACTCTGCTTCTAATCACCCCTTCTCCAGCCC  
 700  
 3' taaataAACCTTGTTTCGTCGTTTACTCTTGAATAAACCACGTCAGTCCCGAGGTAAATCAAGGGAGTGAGACGAAGATTAGTGGGAAGAGGGTCGGG

miR-146a 8mer

-ST...NA ST7L 3' UTR

5' TCTTCTATTTGATAGAGGTCTGTCCCTCAGATCAGCAATGTCTTAGCCCCCTCTCCTCTCTTCCATTCCTTCTGTTGGTACTCATTCTTCTAACTTTTA  
 800  
 3' AGAAGATAAACTATCTCCAGACAGGGAGTCTAGTCGTTACAGAATCGGGGAGAGGAGAAGGTAAGGAAGGACAACCATGAGTAAAGAAGATTGAAAAT

ST7L 3' UTR

BaeI

5' ATAAACATTTAGGTATAATACATTACAGTAAGTGCTATTTAGATACAACTTAAACATACTATATATTTAAGGATCTAAGAATCCTTTAGAGAAGGCA  
 900  
 3' TATTTGTAATCCATATATGTAATGTCATTACGATAAATCTATGTTTGAATTTTGTATGATATATAAAATCCTAGATTCTTAGGAAATCTCTCCGT

ST7L 3' UTR

BbvCI BaeI

5' CATGACTGAAGTACCTCAGCTGCGCAGCCTGTAGCCAGTTTTTTTAAATGTAAAAGTAAGAATGCCAGCCTTAACCTAGCCCTGCAGATAAAAGCTAACTT  
 1000  
 3' GTACTGACTTCATGGAGTCGACGCGTCCGACATCGGTCAAAAAAATACATTTTCTATTCTTACGGTCCGAATTGGATCGGGACGCTATTTTTCGATTGAA

ST7L 3' UTR

pMIR-REP-dCMV-ST7L 3' UTR (844-2494) wt + down gDNA

5' TTATTAATACCAGCCCTGAATAATGGCACTAATCCACACTCTTCCTTAGAGTGATGCTGGAAAAATAAAATCAGGGCTTCAGATTAAAAAACAACAA  
 1100  
 3' AATAATATGGTCGGGACTTATTACCGTGATTAGGTGTGAGAAGGAATCTCACTACGACCTTTTATTTTAGTCCCGAAGTCTAATTTTTTTTTTTGTT  
 ST7L 3' UTR

5' AAAACAAAAACAAAAACAAACATTGCCTGGCCCTGAGGGTCTGTTGCAAACTTCTTGTAGATCTAATTTCTGAACACTCACTGCTTCAATTTCTATTC  
 1200  
 3' TTTTGTTTTTTGTTTTGTTTGTAACGACCGGGACTCCAGACAAAACGTTTTGAAGAACATCTAGATTAAAGACTTGTGAGTGACGAAGTAAAGATAAG  
 ST7L 3' UTR

5' CTCCTGTTGCAGGGAGTAATTTCTTCTCCTTTGTCTCACTTCCCTTATCAAGAACACCAACCAGTAAGTCTTTGCCAAATTTCTCAGACCCACTCAGGACA  
 1300  
 3' GAGGACAACGTCCCTCATTAAAGAAGAGGAAACAGAGTGAAGGGAATAGTTCTTGTGGTTGGTCATTTCAGAAACGGTTTAAGAGTCTGGGTGAGTCTCTGT  
 ST7L 3' UTR

PshAI SwaI

5' CGAGTCTCTACATGGCTTAACAGAAGAGAGATAATTAGGATTTTTTTTCTCAGTCTTTCTGAGGTTTTATTTAAATGCACTCAGTGGTCATAGGGCA  
 1400  
 3' GCTCAGAGATGTACCGAATTGTCTTCTCTATTAATCCTAAAAAAGAGTCCAGAAAGACTCCAAAAATAATTTACGTGAGTCACCAGTATCCCGT  
 ST7L 3' UTR

5' GAAGCTCAAGCTAGCTGGGGCGAAGGGAGGACGCCAGGGAGAGTATGTTTCTCATCCCTGGGAGGCATTTCAGCTAGCTCCTGCAGCCAAATTACAGCAC  
 1500  
 3' CTTCGAGTTCGATCGACCCCGTCCCTCCTGCGGTCCCTCTCATACAAAGAGTAGGGACCTCCGTAAGTCGGATCGAGGACGTCGGTTTAAATGTCGTG  
 ST7L 3' UTR

SanDI

5' CAGAGAACAATGTGATGCATTCTGGGCAGGTCGGTGGGACCTGGGGCCCTGGGCCTTGTGGAGAGAGGTGCCAGACACAGAGTTCTCCGTAAGCAATC  
 1600  
 3' GTCTCTGTTACACTACGTAAGGACCCGTCAGCCACCTGGGACCCGCGGACCCGGAACACCTCTCTCCACGTCCTGTGTCTCAAGAGGCATTTCGTTAG  
 ST7L 3' UTR

miR-23a 8mer

5' CTGCAGAGCCGCCCTGGGTGCAGAAATGAAATACGGGAGAGCTTACATTACACAGAGACCTGTAGCTCACACCTGGTTATGTAGGCCCTTGGTGGAG  
 1700  
 3' GACGTCTCGGCGGGGACCCACGTCTTACTTTATGCCCTCTCGAAGTGTAAATGTGTCTCTGGACATCGAGTGTGGACCAATAACTACCGGAACCACCTC  
 ST7L 3' UTR

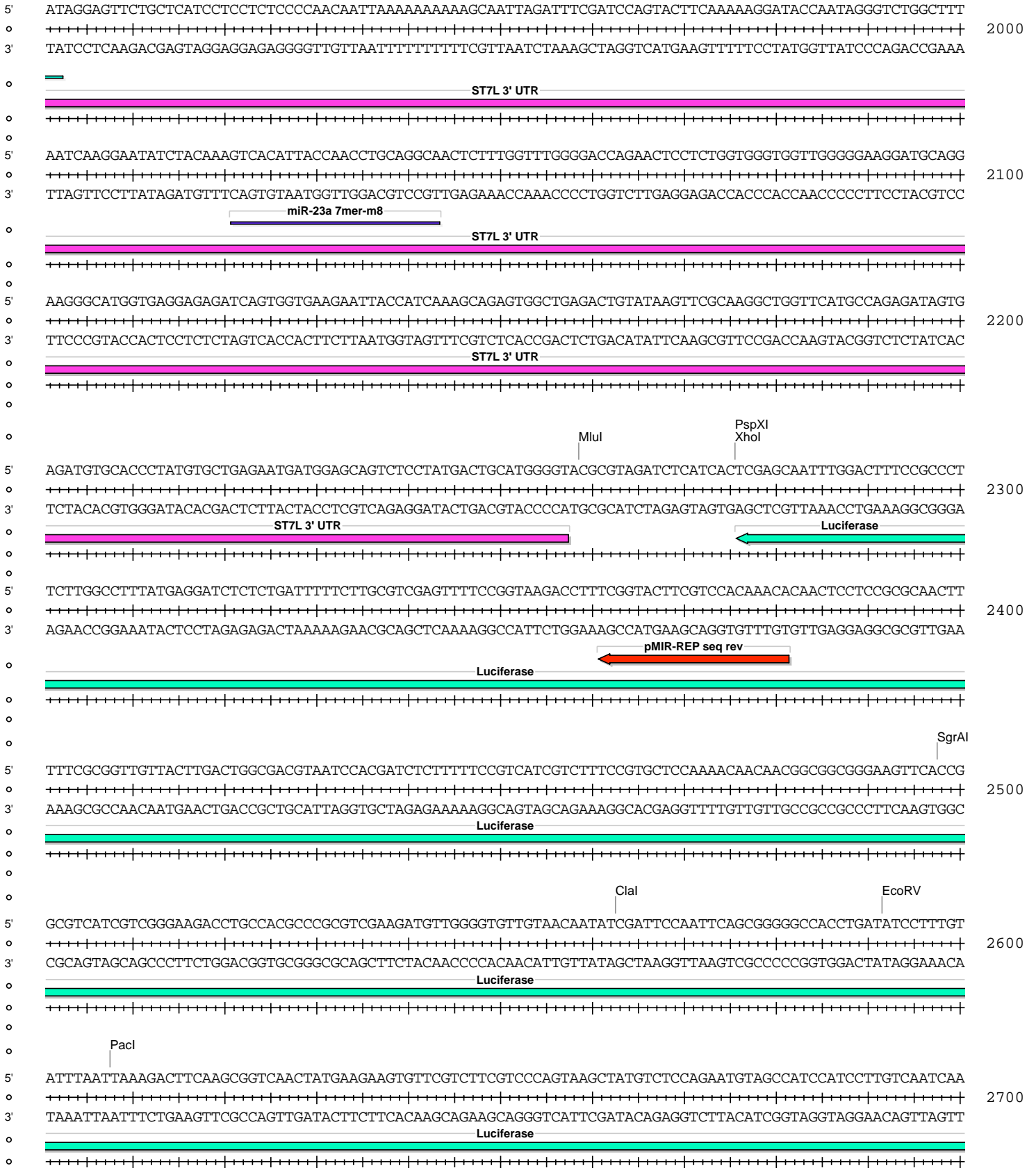
5' GCCTCTGCCCCGACCTCCACTTGGGAAGTGCCTGCTACTACGGGGTGGGCATCTTTGAAGCAATGTTGGATAACAAGAAAGAGATGCTTCTTTTCA  
 1800  
 3' CGGAGACGGGGCTGGGAGGTGAACCTTGACGGACGATGATGCCCCCAACCGTAGAAACTCGTTACAACCTATTGTTCTTTCTACGAAGGAAAAGT  
 ST7L 3' UTR

AleI

5' CTCCTTGCCCTCCCTGTCAGCCTGAGCACAACCATGAGGTTACACACACACACAGAGGTGTACATATAACAGACATAGAGAACTTCTCTCAGGCTGC  
 1900  
 3' GAGAAACGGGAGGGACAGTCCGACTCGTGTGGTACTCCAATGTGTGTGTGTGTCTCCACATGTATATGTCTGTGTATCTCTTGAAGAGAGTCCGACG  
 ST7L 3' UTR

miR-146a 7mer-m8

pMIR-REP-dCMV-ST7L 3' UTR (844-2494) wt + down gDNA



o

5' GGCGTTGGTCGCTTCCGGATTGTTTACATAACCGGACATAATCATAGGTCCTCTGACACATAATTTCGCCTCTCTGATTAACGCCAGCGTTTCCCGGTA 2800  
o  
3' CCGCAACCAGCGAAGGCTAACAAATGTATTGGCCTGTATTAGTATCCAGGAGACTGTGTATTAAGCGGAGAGACTAATTGCGGGTCGAAAAGGCCAT  
o  
Luciferase

o

5' TCCAGATCCACAACCTTCGCTTCAAAAAATGGAACAACCTTACCAGCCGCCCGGTTTATCATCCCCCTCGGGTGTAAATCAGAATAGCTGATGTAGTCT 2900  
o  
3' AGGTCTAGGTGTTGGAAGCGAAGTTTTTTACCTTGTTGAAATGGCTGGCGCGGGCCAAATAGTAGGGGAGCCACATTAGTCTTATCGACTACATCAGA  
o  
Luciferase

o

5' CAGTGAGCCCATATCCTTGTCGTATCCCTGGAAGATGGAAGCGTTTTCGAACCGCTTCCCCGACTTCTTTCGAAAGAGGTGCGCCCCAGAAGCAATTC 3000  
o  
3' GTCACTCGGGTATAGGAACAGCATAGGGACCTTCTACCTTCGAAAACGTTGGCGAAGGGCTGAAGAAAGCTTCTCCACGCGGGGCTTCGTTAAAG  
o  
Luciferase

o

5' GTGTAAATTAGATAAATCGTATTTGTCAATCAGAGTGCCTTTGGCGAAGAATGAAAAATAGGGTTGGTACTAGCAACGCCTTTGAATTTTGTAAATCCTGA 3100  
o  
3' CACATTTAATCTATTTAGCATAAACAGTTAGTCTCACGAAAACCGCTTCTACTTTTATCCCAACCATGATCGTTCGCGTAAACTTAAAACATTAGGACT  
o  
Luciferase

o

5' AGGGATCGTAAAAACAGCTCTTCTTCAAATCTATACATTAAGACGACTCGAAATCCACATATCAAATATCCGAGTGTAGTAAACATTCCAAAACCGTGAT 3200  
o  
3' TCCCTAGCATTTTGTGCGAGAAGAAGTTTAGATATGTAATTTCTGCTGAGCTTTAGGTGTATAGTTTATAGGCTCACATCATTGTAAAGTTTTGGCACTA  
o  
Luciferase

o

5' GGAATGGGACAACACTTAAAATCGCAGTATCCGGAACGATTTGATTGCCAAAAATAGGATCTCTGGCATGCGAGAATCTGACGCAGGCAGTTCTATGCGG 3300  
o  
3' CCTTACCCTGTTGTGAATTTTAGCGTCATAGGCCTTGCTAAACTAACGGTTTTTATCCTAGAGACCGTACGCTCTTAGACTGCGTCCGTCAAGATACGCC  
o  
Luciferase

o

5' AAGGGCCACACCCTTAGGTAACCCAGTAGATCCAGAGGAATTCATTATCAGTGAATTTGTTTGTACAGATCAAAGGACTCTGGTACAAAATCGTATTC 3400  
o  
3' TTCCCGGTGTGGGAATCCATTGGGTCATCTAGGTCTCCTTAAGTAATAGTACGTTAAACAAAACAGTCTAGTTTCCTGAGACCATGTTTTAGCATAAGT  
o  
Luciferase

o

5' TTAAAACCGGGAGGTAGATGAGATGTGACGAACGTGTACATCGACTGAAATCCCTGGTAATCCGTTTTAGAAATCCATGATAATAATTTCTGGATTATTG 3500  
o  
3' AATTTTGGCCCTCCATCTACTCTACACTGCTTGACATGTAGCTGACTTTAGGGACCATTAGGCAAAATCTTAGGTAATTTTAAAAGACCTAATAAC  
o  
Luciferase

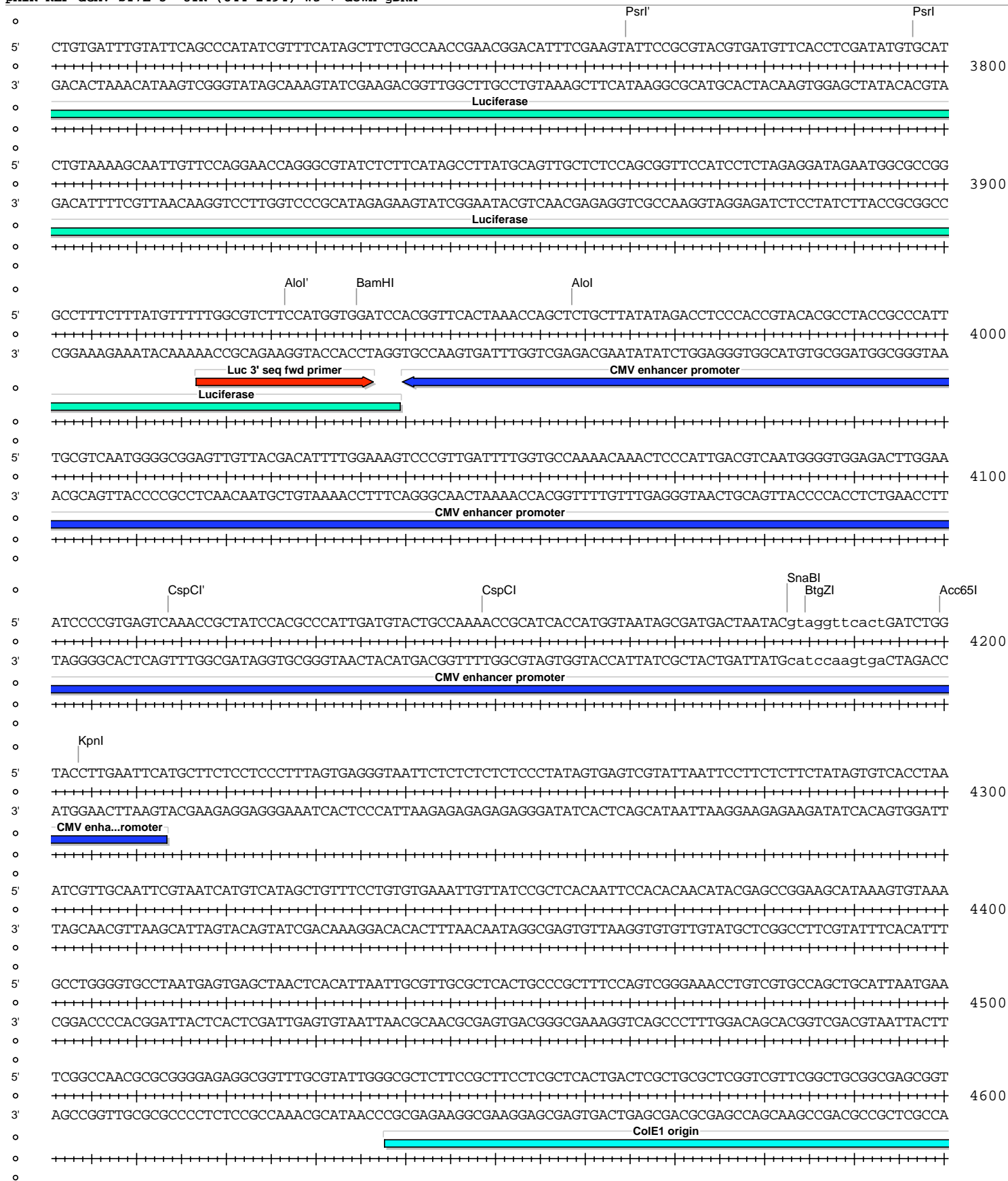
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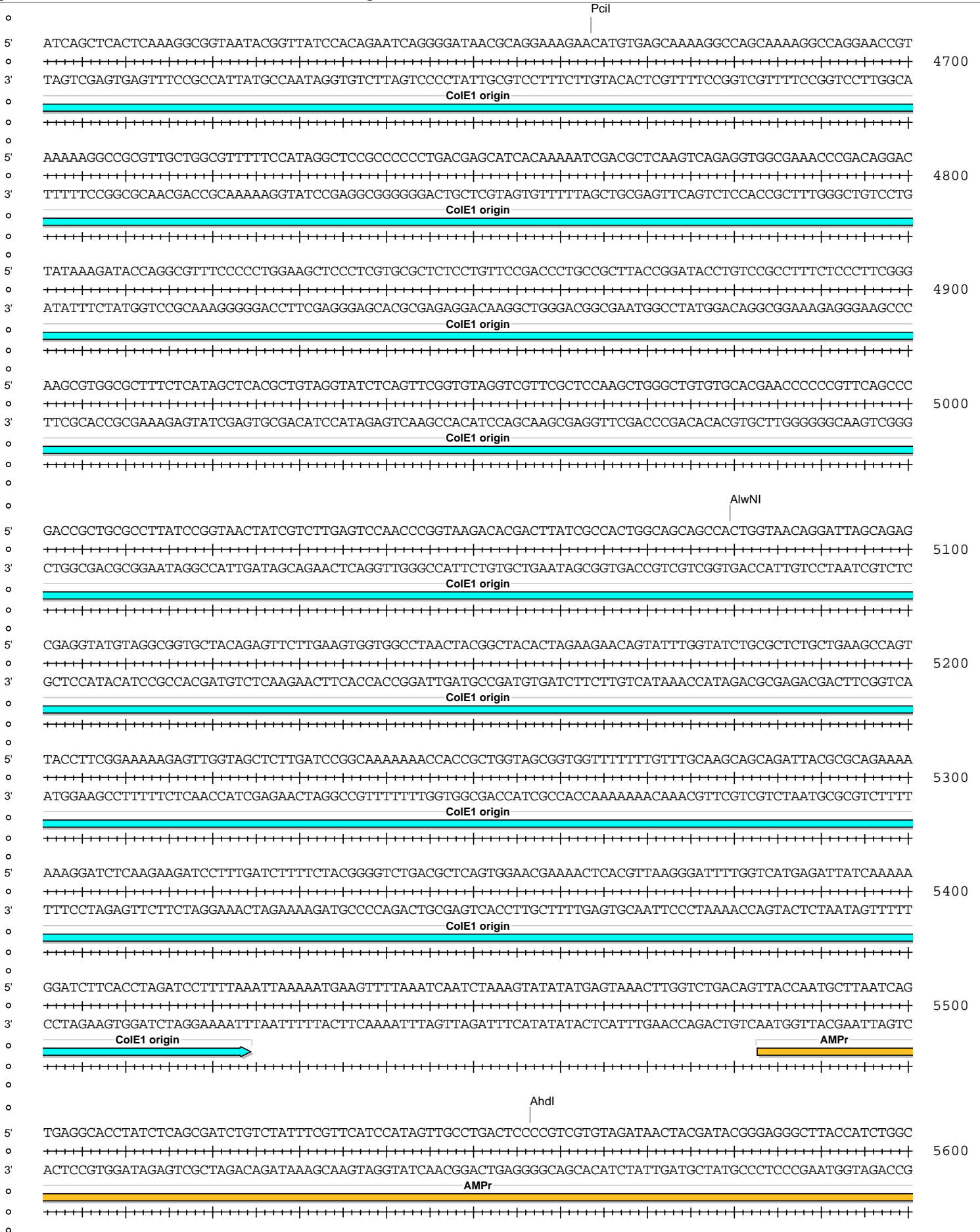
5' GTAATTTTTTTTGCACGTTCAAAATTTTTCGAACCCCTTTTGGAAACAAACACTACGGTAGGCTGCGAAATGTTCACTGTTGAGCAATTCACGTT 3600  
o  
3' CATTAATAAAAAACGTCAGTTTAAAAAACGTTGGGGAAAAACCTTTGTTTGTGATGCCATCCGACGCTTTACAAGTATGACAACTCGTTAAGTGAAG  
o  
Luciferase

o

5' ATTATAAATGTCGTTTCGCGGGCGCAACTGCAACTCCGATAAATAACGCGCCCAACACCGGCATAAAGAATTGAAGAGAGTTTTCACTGCATACGACGATT 3700  
o  
3' TAATATTTACAGCAAGCGCCCGGTTGACGTTGAGGCTATTTAATGCGCGGGTTGTGGCCGTTTCTTAACCTCTCTCAAAGTGACGTATGCTGCTAA  
o  
Luciferase

o







pMIR-REP-dCMV-ST7L 3' UTR (844-2494) wt + down gDNA

5' CCCAGTGTCTGCAATGATACCGCGAGACCCACGCTCACC GGCTCCAGATTTATCAGCAATAAACAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCCTG  
 3' GGGTCACGACGTTACTATGGCGCTCTGGGTGCGAGTGGCCGAGGTCTAAATAGTCGTTATTTGGTCGGTCGGCCTTCCCGGCTCGCGTCTTACCAGGAC  
 AMPr

5' CAACTTTATCCGCCTCCATCCAGTCTATTAATTGTTGCCGGAAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTTTGGCACAACGTTGTTGCCATTGCTAC  
 3' GTTGAAATAGGCGGAGGTAGGTCAGATAATTAACAACGGCCCTTCGATCTCATTCAAGCGGTCAATTATCAAACGCGTTGCAACAACGGTAACGATG  
 AMPr

5' AGGCATCGTGGTGTACGCTCGTCGTTTGGTATGGCTTCATTCAGCTCCGGTTCCCAACGATCAAGGCGAGTTACATGATCCCCCATGTTGTGCAAAAA  
 3' TCCGTAGCACCACAGTGGCAGCAGCAAACCATAACGAAGTAAGTCGAGGCCAAGGGTTGCTAGTTCGGCTCAATGTACTAGGGGGTACAACACGTTTTTT  
 AMPr

5' GCGGTTAGCTCCTTCGGTCTCCGATCGTTGTGAGAAGTAAGTTGGCCGAGTGTATCACTCATGGTTATGGCAGCACTGCATAATTCTTACTGTCA  
 3' CGCCAATCGAGGAAGCCAGGAGGCTAGCAACAGTCTTCATTCAACCGGCGTCACAATAGTGAGTACCAATACCGTCGTGACGTATTAAGAGAATGACAGT  
 AMPr

5' TGCCATCCGTAAGATGCTTTTCTGTGACTGGTGTGACTCAACCAAGTCATTCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTCAAT  
 3' ACGGTAGGCATTTCTACGAAAAGACACTGACCACTCATGAGTTGGTTTCAGTAAGACTCTTATCACATACGCCGCTGGCTCAACGAGAACGGGCCGAGTTA  
 AMPr

Xmnl

5' ACGGGATAATACCGCGCCACATAGCAGAACCTTTAAAAGTGCTCATCATTGAAAACGTTCTTCGGGGCGAAAACCTCAAGGATCTTACCGCTGTTGAGA  
 3' TGCCCTATTATGGCGCGGTGTATCGTCTTGAAATTTTACGAGTAGTAACCTTTTGCAAGAAGCCCCGCTTTTGAGAGTTCTAGAAATGGCGACAACCTCT  
 AMPr

5' TCCAGTTCGATGTAACCCACTCGTGCACCCAACTGATCTTCAGCATCTTTTACTTTACACAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCAAAAATGCCG  
 3' AGGTCAAGCTACATTGGGTGAGCACGTGGGTTGACTAGAAGTCGTAGAAAATGAAAGTGGTCGCAAAGACCCACTCGTTTGTGCTTCCGTTTACGGC  
 AMPr

Sspl

5' CAAAAAAGGAATAAGGGCGACACGGAAATGTTGAATACTCATACTCTTCTTTTCAATATATTGAAGCATTATCAGGGTTATGTCTCATGAGCGG  
 3' GTTTTTTCCCTTATTCCCGCTGTGCCTTTACAACCTTATGAGTATGAGAAGGAAAAAGTTATAATAACTTCGTAATAGTCCCAATAACAGAGTACTCGCC  
 AMPr

5' ATACATATTTGAATGTATTTAGAAAAATAAACAAATAGGGGTTCCGCGCACATTTCCCCGAAAAGTGCCACCTGACGTCTAAGAAACCATTTATTATCATG  
 3' TATGTATAAATTTACATAAATCTTTTATTTGTTTATCCCAAGGCGCGTGTAAAGGGGCTTTTACGGTGGACTGCAGATTCTTTGGTAATAATAGTAC

5' ACATTAACCTATAAAAATAGGCGTATCACGAGATTGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTTATA  
 3' TGTAATTGGATATTTTATCCGCATAGTGCTCTAACGTCACTTTTTTTACGAAATAAACACTTTAAACACTACGATAACGAAATAAACATTGGTAATATT  
 SV40 Poly A



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