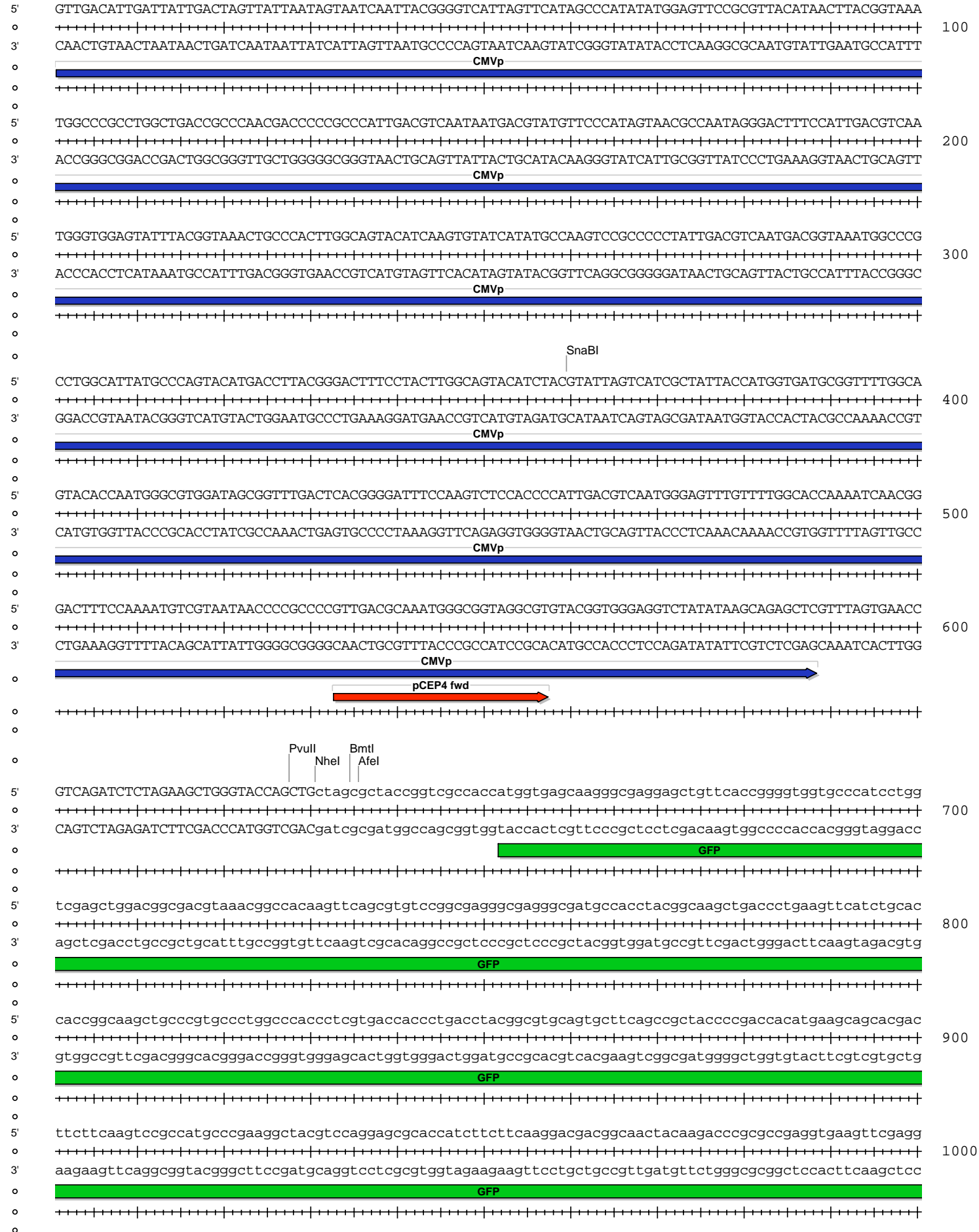


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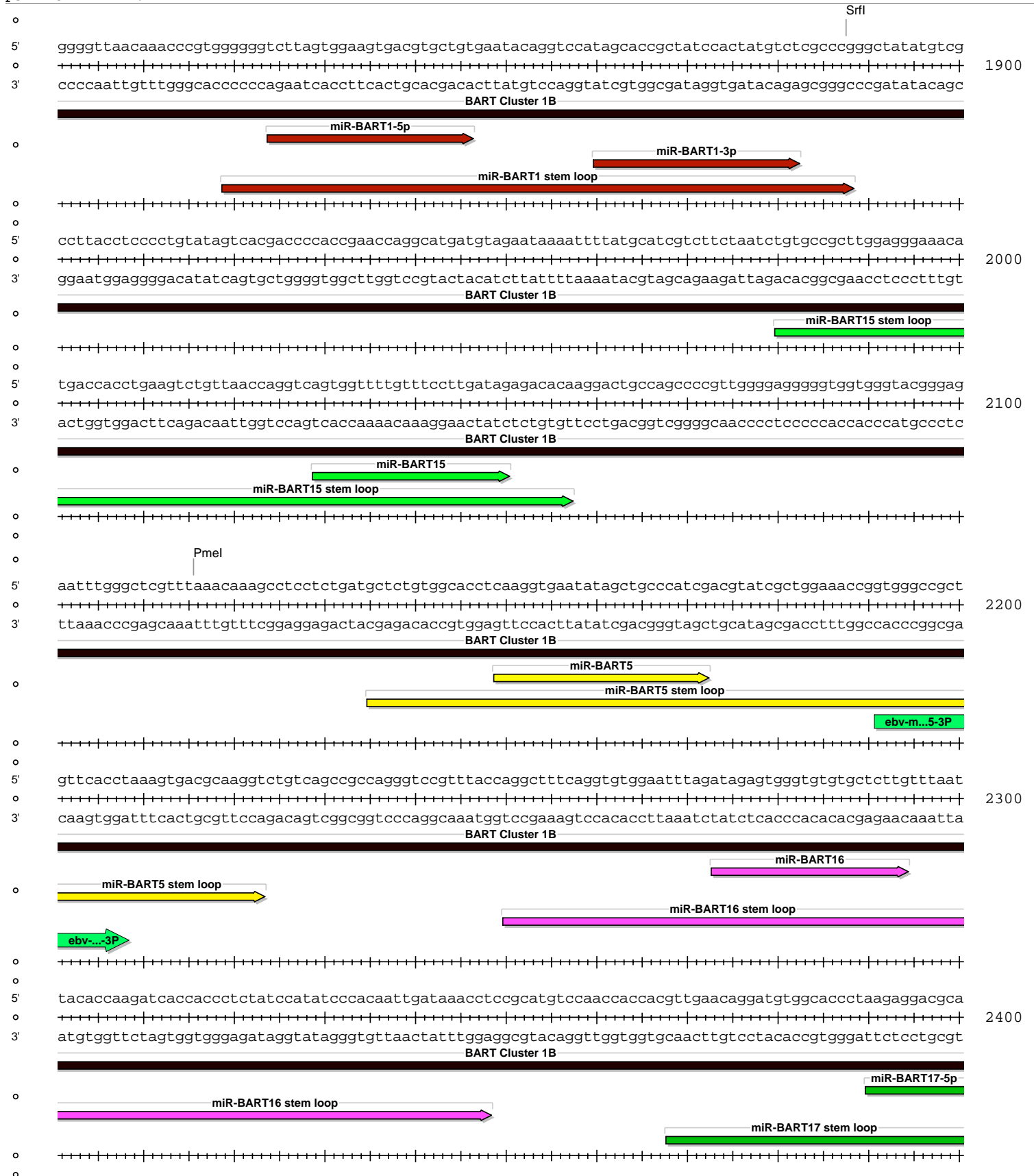
Absent Sites	0	AbsI,AfIII,AscI,BarI,BarI',BbeI,BclI,BlpI,BsiWI,BssHII,BstZ17I,FseI,FspAI,HindIII,KasI,MauBI,MreI,NaeI,NarI,NgoMIV,Pacl, PspXI,Psrl,Psrl',SapI,SbfI,SfiI,SfoI,SgrDI,SphI,Swal,XhoI
AarI	1	2602
AfeI	1	636
AjuI	1	11292
AjuI'	1	11260
Alol	1	4105
Alol'	1	4073
AsiSI	1	10943
BaeI	1	4311
BaeI'	1	4278
BamHI	1	2841
BbvCI	1	5997
BmiI	1	635
BstBI	1	10430
BstEII	1	8037
EcoNI	1	8032
EcoRV	1	3831
NheI	1	631
NotI	1	1373
NruI	1	10129
PmeI	1	2116
PmlI	1	2729
PshAI	1	10606
PvuII	1	628
SgrAI	1	6198
SnaBI	1	360
SrfI	1	1888
XmnI	1	8528

pCEP4-GFP-BART1-6

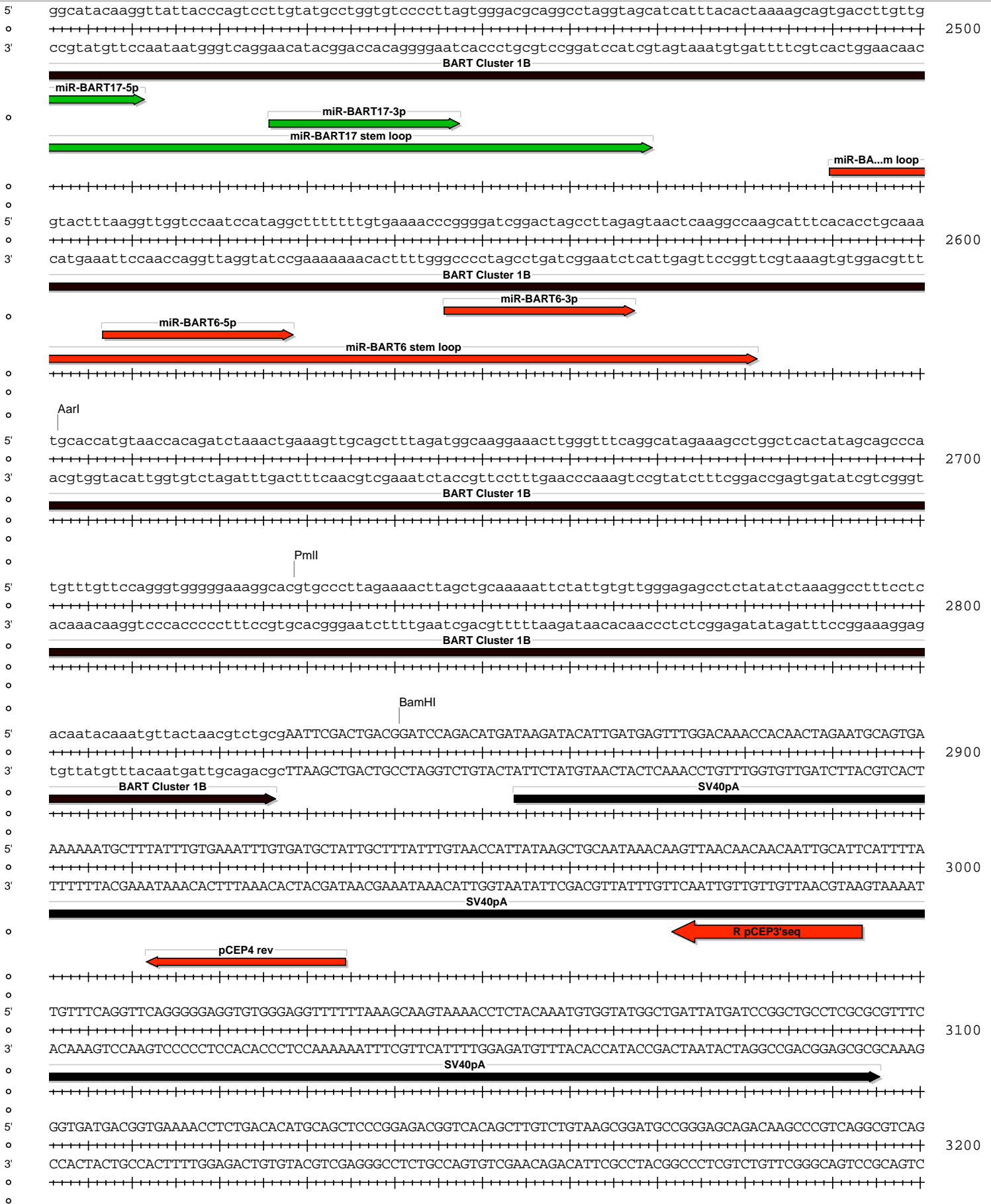


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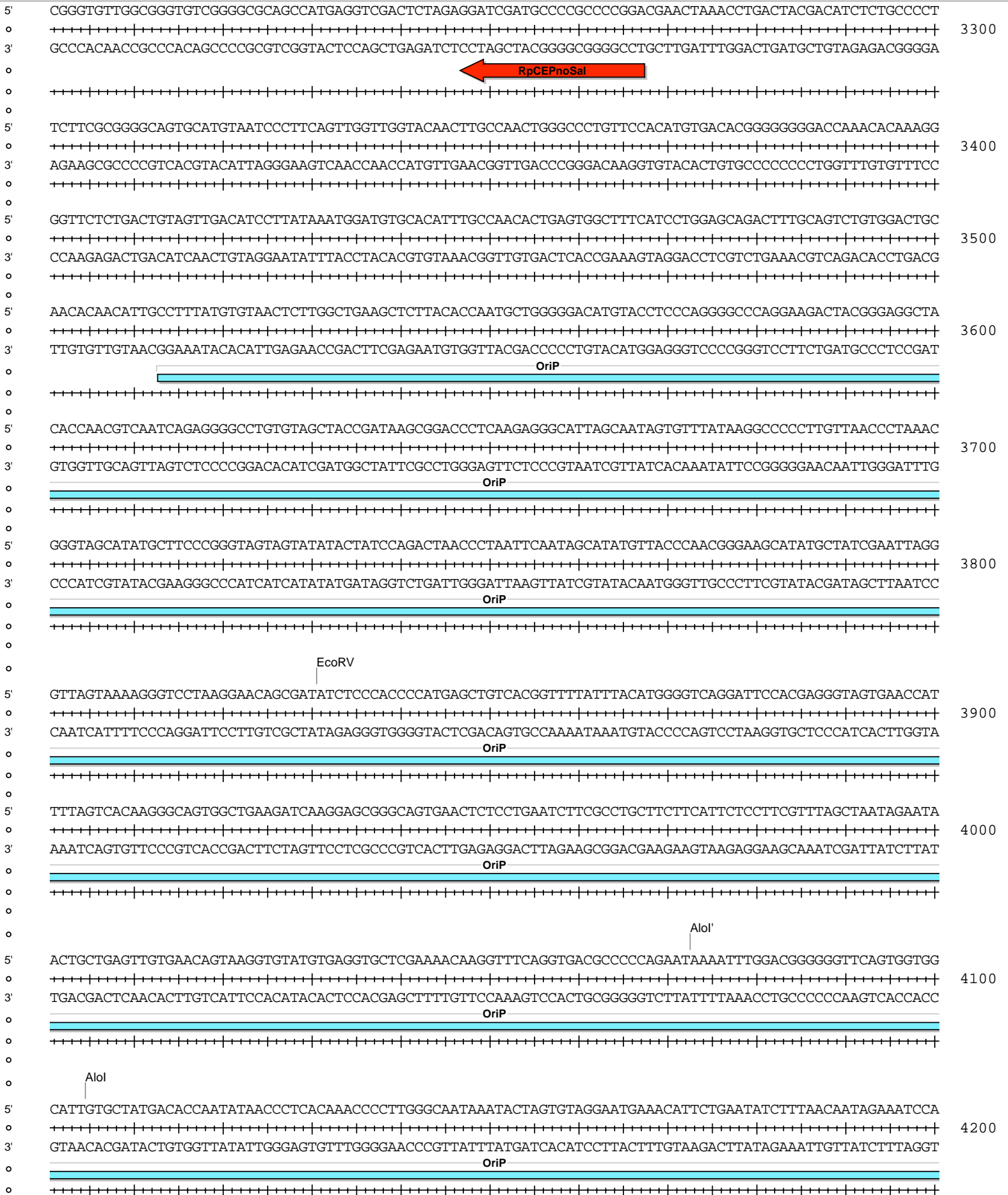




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5' TGGGGTGGGGACAAGCCGTAAGACTGGATGTCCATCTCACACGAATTTATGGCTATGGGCAACACATAATCCTAGTGCAATATGATACTGGGGTTATTA 4300
o
3' ACCCCACCCCTGTTCGGCATTTCTGACCTACAGGTAGAGTGTGCTTAAATACCGATACCCGTTGTGTATTAGGATCACGTTATACTATGACCCCAATAAT
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OriP

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5' AGATGTGTCCAGGCAGGGACCAAGACAGGTGAACCATGTTGTTACACTCTATTGTAAACAAGGGGAAAGAGAGTGGACGCCGACAGCAGCGGACTCCAC 4400
o
3' TCTACACAGGGTCCGTCCCTGGTTCGTCCACTTGGTACAACAATGTGAGATAAACATTTGTTCCCTTTCTCTCACCTGCGGTGTCTGTCGCCTGAGGTG
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OriP

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5' TGGTTGTCTCTAACACCCCGAAAATTAACGGGGCTCCACGCCAATGGGGCCATAAAACAAAGACAAGTGGCCACTCTTTTTTTTGA AATTGTGGAGTG 4500
o
3' ACCAACAGAGATTGTGGGGCTTTAATTTGCCCGAGGTGCGGTTACCCCGGTTATTTGTTCTGTTCCCGGTGAGAAAAAAACTTTAACACCTCAC
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OriP

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5' GGGGCACGCGTCAGCCCCACACGCCGCCCTGCGGTTTTGGACTGTAAAATAAGGGTGTAAATAACTTGGCTGATTGTAACCCCGCTAACCACTGCGGTCA 4600
o
3' CCCCCTGCGCAGTCGGGGGTGTGCGCGGGACGCCAAAACCTGACATTTTATCCACATATTGAACCGACTAACATTGGGGCGATTGGTGACGCCAGT
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OriP

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5' AACCACCTGCCCACAAAACCACTAATGGCACCCCGGGGAATACCTGCATAAGTAGGTGGGCGGGCAAGATAGGGGCGGATTGCTGCGATCTGGAGGAC 4700
o
3' TTGGTGAACGGGTGTTTTGGTGATTACCGTGGGGCCCTTATGGACGTATTCATCCACCCGCGGTTCTATCCCCGCGCTAACGACGCTAGACCTCCTG
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5' AAATTACACACTTGCCTGAGCGCCAAGCACAGGGTTGTTGGTCTCATATTCACGAGGTCGCTGAGAGCACGGTGGGCTAATGTTGCCATGGGTAG 4800
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3' TTTAATGTGTGTGAACGCGGACTCGCGGTTGTTGTTCCCAACAACCAGGAGTATAAGTGCTCCAGCGACTCTCGTGCCACCCGATTACAACGGTACCCATC
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OriP

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5' CATATACTACCCAAATATCTGGATAGCATATGCTATCCTAATCTATATCTGGGTAGCATAGGCTATCCTAATCTATATCTGGGTAGCATATGCTATCCTA 4900
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3' GTATATGATGGGTTTATAGACCTATCGTATACGATAGGATTAGATATAGACCCATCGTATCCGATAGGATTAGATATAGACCCATCGTATACGATAGGAT
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OriP

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5' ATCTATATCTGGGTAGTATATGCTATCCTAATTTATATCTGGGTAGCATAGGCTATCCTAATCTATATCTGGGTAGCATATGCTATCCTAATCTATATCT 5000
o
3' TAGATATAGACCCATCATATACGATAGGATTAAATATAGACCCATCGTATCCGATAGGATTAGATATAGACCCATCGTATACGATAGGATTAGATATAGA
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OriP

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5' GGGTAGTATATGCTATCCTAATCTGTATCCGGGTAGCATATGCTATCCTAATAGAGATTAGGGTAGTATATGCTATCCTAATTTATATCTGGGTAGCATA 5100
o
3' CCCATCATATACGATAGGATTAGACATAGGCCATCGTATACGATAGGATTATCTTAATCCCATCATATACGATAGGATTAAATATAGACCCATCGTAT
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OriP

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5' TACTACCCAAATATCTGGATAGCATATGCTATCCTAATCTATATCTGGGTAGCATATGCTATCCTAATCTATATCTGGGTAGCATAGGCTATCCTAATCT 5200
o
3' ATGATGGGTTTATAGACCTATCGTATACGATAGGATTAGATATAGACCCATCGTATACGATAGGATTAGATATAGACCCATCGTATCCGATAGGATTAGA
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OriP

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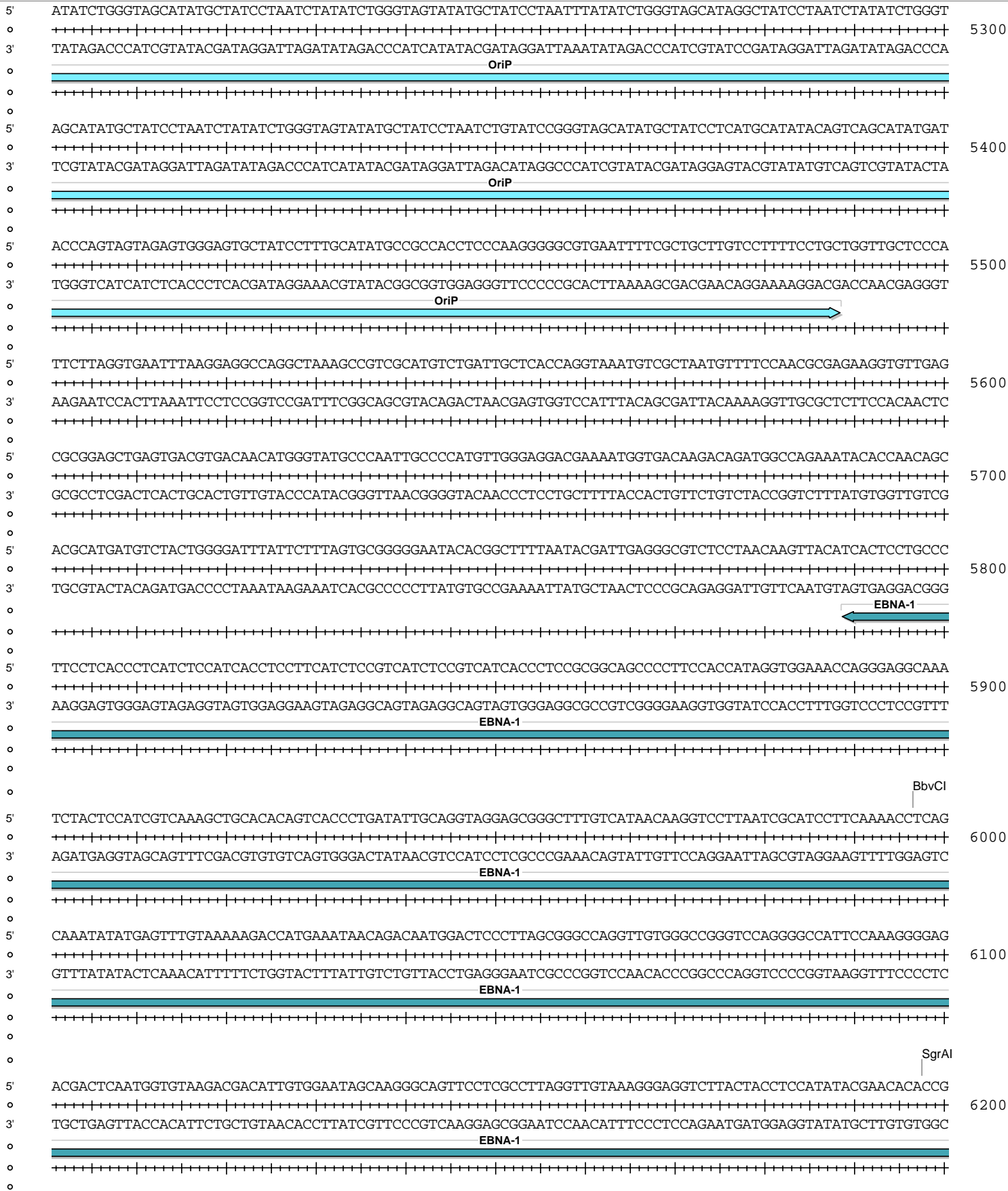
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pCEP4-GFP-BART1-6

5' GCGACCCAAGTTCCTTCGTCGGTAGTCCTTTCTACGTGACTCCTAGCCAGGAGAGCTCTTAAACCTTCTGCAATGTTCTCAAATTTCCGGTTTGGAACCTC
 6300
 3' CGCTGGGTTCAAGGAAGCAGCCATCAGGAAAGATGCACTGAGGATCGGTCTCTCGAGAATTTGGAAGACGTTACAAGAGTTTAAAGCCCAACCTTGGAG
 EBNA-1

5' CTGACCACGATGCTTTCCAACCACCCTCCTTTTTGCGCCTGCCTCCATCACCTGACCCCGGGTCCAGTGC'TGGGCC'TTCTCTGGGTATCTGC
 6400
 3' GAACTGGTGTCTACGAAAGGTTTGGTGGGAGGAAAAACGCGGACGGAGGTAGTGGGACTGGGGCCCGAGGTACGAACCCGGAAGAGGACCCAGTAGACC
 EBNA-1

5' GGGGCCCTGCTCTATCGCTCCCGGGGACGTCAGGCTCACCATCTGGGCCACCTTCTTGGTGGTATTCAAATAATCGGCTTCCCTACAGGGTGGAAA
 6500
 3' CCCCGGACGAGATAGCGAGGGCCCCGTGCAGTCCGAGTGGTAGACCCGGTGAAGAACCACCATAAGTTTATTTAGCCGAAGGGGATGTCCACCTTT
 EBNA-1

5' AATGGCCTTCTACCTGGAGGGGCTGCGCGGTGGAGACCCGGATGATGATGACTGACTACTGGGACTCCTGGGCCTTTTCTCCACGTCCACGACCTC
 6600
 3' TTACCGGAAGATGGACCTCCCCGGACGCGCCACCTCTGGGCCTACTACTACTGACTGATGACCTGAGGACCCGGAGAAAAGAGGTGCAGGTGCTGGAG
 EBNA-1

5' TCCCCCTGGCTCTTTCACGACTTCCCCCTGGCTCTTTCACGTCTCTACCCCGGGCCTCCACTACCTCCTCGACCCCGGCTCCACTACCTCCTCG
 6700
 3' AGGGGACCGAGAAAGTGTGAAGGGGGGACCGAGAAAGTGCAGGAGATGGGCGCCCGAGGTGATGGAGGAGCTGGGGCCGGAGGTGATGGAGGAGC
 EBNA-1

5' ACCCGGCCTCCACTGCCTCCTCGACCCCGGCTCCACTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTCCTGCTCCTGCCCTCCTGCCCTCCT
 6800
 3' TGGGGCCGGAGGTGACGGAGGAGCTGGGGCCGGAGGTGGAGGACGAGGACGGGGAGGACGAGGACGGGGAGGAGGACGAGGACGGGGAGGACGGGGAGGA
 EBNA-1

5' GCTCCTGCCCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTCCTGCTCCTGCCCTCCTGCCCTCCTC
 6900
 3' CGAGGACGGGGAGGACGGGGAGGACGAGGACGGGGAGGACGGGGAGGACGAGGACGGGGAGGACGAGGACGGGGAGGACGAGGACGGGGAGGAG
 EBNA-1

5' CTGCTCCTGCCCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCT
 7000
 3' GACGAGGACGGGGAGGACGGGGAGGACGAGGACGGGGAGGACGGGGAGGACGAGGACGGGGAGGACGAGGACGGGGAGGACGAGGACGGGGAGGAG
 EBNA-1

5' TCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCCCT
 7100
 3' AGGACGAGGACGGGGAGGACGAGGACGGGGAGGACGGGGAGGACGAGGACGGGGAGGACGAGGACGGGGAGGACGAGGACGGGGAGGACGGGGAGGAG
 EBNA-1

5' CCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTC
 7200
 3' GGACGAGGACGGGGAGGAGGACGAGGACGGGGAGGACGGGGAGGAGGACGAGGACGGGGAGGACGGGGAGGAGGACGAGGACGGGGAGGAGGAG
 EBNA-1

pCEP4-GFP-BART1-6

5' CCCTGATAAATGCTTCAATAATATTGAAAAAGGAAGAGTATGAGTATTCAACATTTCCGTGTCGCCCTTATFCCC'TTTTTGCGGCATTTGCCTTCCTG
 8400
 3' GGGACTATTTACGAAGTTATTATAACTTTTTCCTTCTCATACTCATAAGTTGTAAAGGCACAGCGGGAATAAGGGAAAAAACGCCGTAAAACGGAAGGAC
 AMP R

5' TTTTGTCTACCCAGAAACGCTGGTGAAAGTAAAAGATGCTGAAGATCAGTTGGGTGCACGAGTGGTTACATCGAACTGGATCTCAACAGCGGTAAGAT
 8500
 3' AAAAACGAGTGGGTCTTTTGCACCCTTTTCATTTTCTACGACTTCTAGTCAACCCAGTCTCACCCTAGTACCTAGAGTTGTGCCATTCTA
 AMP R

Xmnl
 5' CCTTGAGAGTTTTTCGCCCCGAAGAAGCTTTTCCAATGATGAGCACTTTTAAAGTTCTGTATGTGGCGCGGTATTATCCCCTGTTGACGCCGGCAAGAG
 8600
 3' GGAAGTCTCAAAGCGGGCTTCTTGCAAAAGGTTACTACTCGTGAAAATTTCAAGACGATACACCGGCCATAATAGGGCACAACCTCGGCCGTTCTC
 AMP R

5' CAACTCGGTGCGCCATACACTATTCTCAGAATGACTTGGTTGAGTACTCACCAGTCCAGAAAAGCATCTTACGGATGGCATGACAGTAAGAGAATTAT
 8700
 3' GTTGAGCCAGCGCGTATGTGATAAGAGTCTTACTGAACCAACTCATGAGTGGTCAGTGTCTTTTTCGTAGAATGCCTACCGTACTGTCATTCTCTTAATA
 AMP R

5' GCAGTGTGCCATAACCATGAGTGATAAACTGCGGCCAACTTACTTCTGACAACGATCGGAGGACCGAAGGAGCTAACCGCTTTTTTGCACAACATGGG
 8800
 3' CGTCACGACGGTATTTGGTACTCACTATTGTGACGCCGTTGAATGAAGACTGTTGCTAGCCTCCTGGCTTCTCGATTGGCGAAAAACGTGTTGTACCC
 AMP R

5' GGATCATGTAACTCGCCCTTGATCGTTGGGAACCGGAGCTGAATGAAGCCATACCAAACGACGAGCGTGACACCACGATGCCTGCAGCAATGGCAACAACG
 8900
 3' CCTAGTACATTGAGCGGAACTAGCAACCCCTGGCCCTCGACTTACTTTCGGTATGTTTGTGCTGCTCGCACTGTGGTGCTACGGACGTCGTTACCGTTGTTGC
 AMP R

5' TTGCGCAAACATTAACGGGAACTACTTACTCTAGCTTCCCGGCAACAATTAATAGACTGGATGGAGGCGGATAAAGTTGCAGGACCACTTCTGCGCT
 9000
 3' AACCGCTTTGATAATTGACCGCTTGATGAATGAGATCGAAGGGCCGTTGTTAATTTATCTGACCTACCTCCGCTATTTCAACGTCCTGGTGAAGACGCGA
 AMP R

5' CGGCCCTTCCGGCTGGCTGTTTATGCTGATAAATCTGGAGCCGGTGAGCGTGGGTCTCGCGGTATCATTGCAGCACTGGGCGCAGATGGTAAGCCCTC
 9100
 3' GCCGGGAAGGCCGACCGACCAAATAACGACTATTTAGACCTCGGCCACTCGCACCCAGAGCGCCATAGTAACGTCGTGACCCCGGCTACCATTCGGGAG
 AMP R

5' CCGTATCGTAGTTATCTACACGACGGGAGTCAGGCAACTATGGATGAACGAAATAGACAGATCGCTGAGATAGGTGCCTCACTGATTAAGCATTGGTAA
 9200
 3' GGCATAGCATCAATAGATGTGCTGCCCTCAGTCCGTTGATACCTACTTGTCTTATCTGTCTAGCGACTCTATCCACGGAGTACTAATTTCGTAACCATT
 AMP R

5' CTGTCAGACCAAGTTTACTCATATATACTTTAGATTGATTTAAAACCTCATT'TTTAATTTAAAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCATGA
 9300
 3' GACAGTCTGGTTCAAATGAGTATATATGAAATCTAACTAAATTTTGAAGTAAAAATTAATTTTCTAGATCCACTTCTAGGAAAACTATTAGAGTACT
 pUCori

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5' CCAAAATCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTCTGCGCGTAATCTG 9400
 3' GGTTTTAGGGAATTGCACTCAAAGCAAGGTGACTCGCAGTCTGGGGCATCTTTTCTAGTTTCCTAGAAGAACTCTAGGAAAAAAGACGCGCATTAGAC
 pUCori

5' CTGCTTGCAAACAAAAAACACCCTACCAGCGGTGGTTTGTGGCCGATCAAGAGCTACCAACTCTTTTCCGAAGGTAAGTGGCTTTCAGCAGAGCC 9500
 3' GACGAACGTTTGTTTTTTGGTGGCGATGGTCCACCAAACAAACGGCTAGTTCTCGATGGTTGAGAAAAGGCTTCCATTGACCGAAGTCGTCTCGC
 pUCori

5' CAGATACCAAATACTGTCTTCTAGTGTAGCCGTAGTTAGGCCACCCTTCAAGAACTCTGTAGCACCGCCTACATACCTCGCTCTGCTAATCCTGTTAC 9600
 3' GTCTATGGTTTATGACAGGAAGATCACATCGGCATCAATCCGGTGGTGAAGTCTTGAGACATCGTGGCGGATGTATGGAGCGAGACGATTAGGACAATG
 pUCori

5' CAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTTCGGGCTGAACGGGGGTTTC 9700
 3' GTCACCGACGACGGTCACCGCTATTCAGCACAGAATGGCCCAACCTGAGTTCGTCTATCAATGGCTTATTCGCGTCCGACCCGACTTGCCCCCAAG
 pUCori

5' GTGCACACAGCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCG 9800
 3' CACGTGTGTCGGGTGCAACCTCGCTTGCTGGATGTGGCTTGACTCTATGGATGTCGACTCGATACTCTTTCGCGGTGCGAAGGGCTTCCCTCTTTCCGC
 pUCori

5' GACAGGTATCCGTAAGCGGCAGGTCGGAACAGGAGAGCGCAGAGGGAGCTTCCAGGGGAAACGCCTGGTATCTTTATAGTCTGTGGGTTTCGCC 9900
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 pUCori

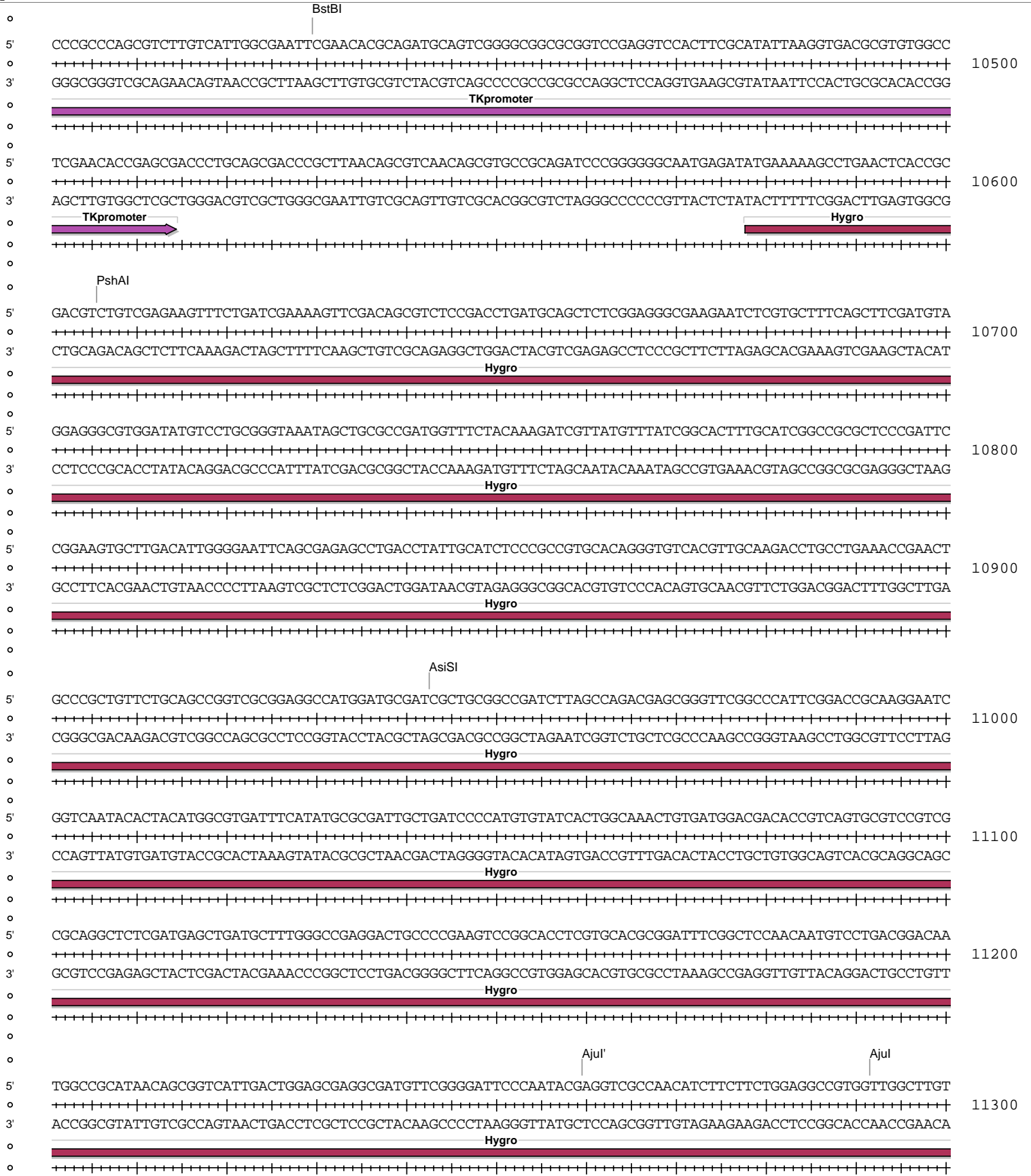
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 pUCori

5' CTGGCCTTGAAGCTGTCCCTGATGGTTCGTCATCTACCTGCCTGGACAGCATGGCTGCAACGCGGGCATCCCGATGCCGCCGGAAGCGAGAAGAATCATA 10100
 3' GACCGGAACTTCGACAGGGACTACCAGCAGTAGATGGACGGACCTGTCTGACCGGACGTTGCGCCGTTAGGGCTACGGCGGCCTTCGCTCTTCTAGTAT
 NruI

5' ATGGGGAAGGCCATCCAGCCTCGCGTCGCGAACGCCAGCAAGACGTAGCCCAGCGCGTCCGCCCCGAGATGCGCCGCGTGGCGCTGCTGGAGATGGCGGA 10200
 3' TACCCCTTCCGGTAGGTCGGAGCGCAGCGCTTTCGGTCTGTCATCGGGTCGCGCAGCCGGGCTCTACGCGGCGCACGCCGACGACCTTACCGCCT

5' CGCGATGGATATGTTCTGCCAAGGGTTGGTTTGCGCATTCACAGTCTCCGCAAGAATTGATTGGCTCCAATTCTTGGAGTGGTGAATCCGTTAGCGAGG 10300
 3' GCGCTACCTATAACAAGACGGTTCCAACCAAACGCGTAAGTGTCAAGAGGCGTCTTAACTAACCGAGGTTAAGAACCTCACCCTTAGGCAATCGCTCC

5' TGCCGCCCTGCTTCATCCCCGTGGCCCGTTGCTCGCGTTGCTGGCGGTGTCGCCGGAAGAAATATATTTGCATGTCTTTAGTTCTATGATGACACAAC 10400
 3' ACGGCGGACGAAGTAGGGGACCCGGCAACGAGCGCAAACGACCGCCACAGGGCCTTCTTTATATAACGTACAGAAATCAAGATACTACTGTGTTTG
 TKpromoter



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