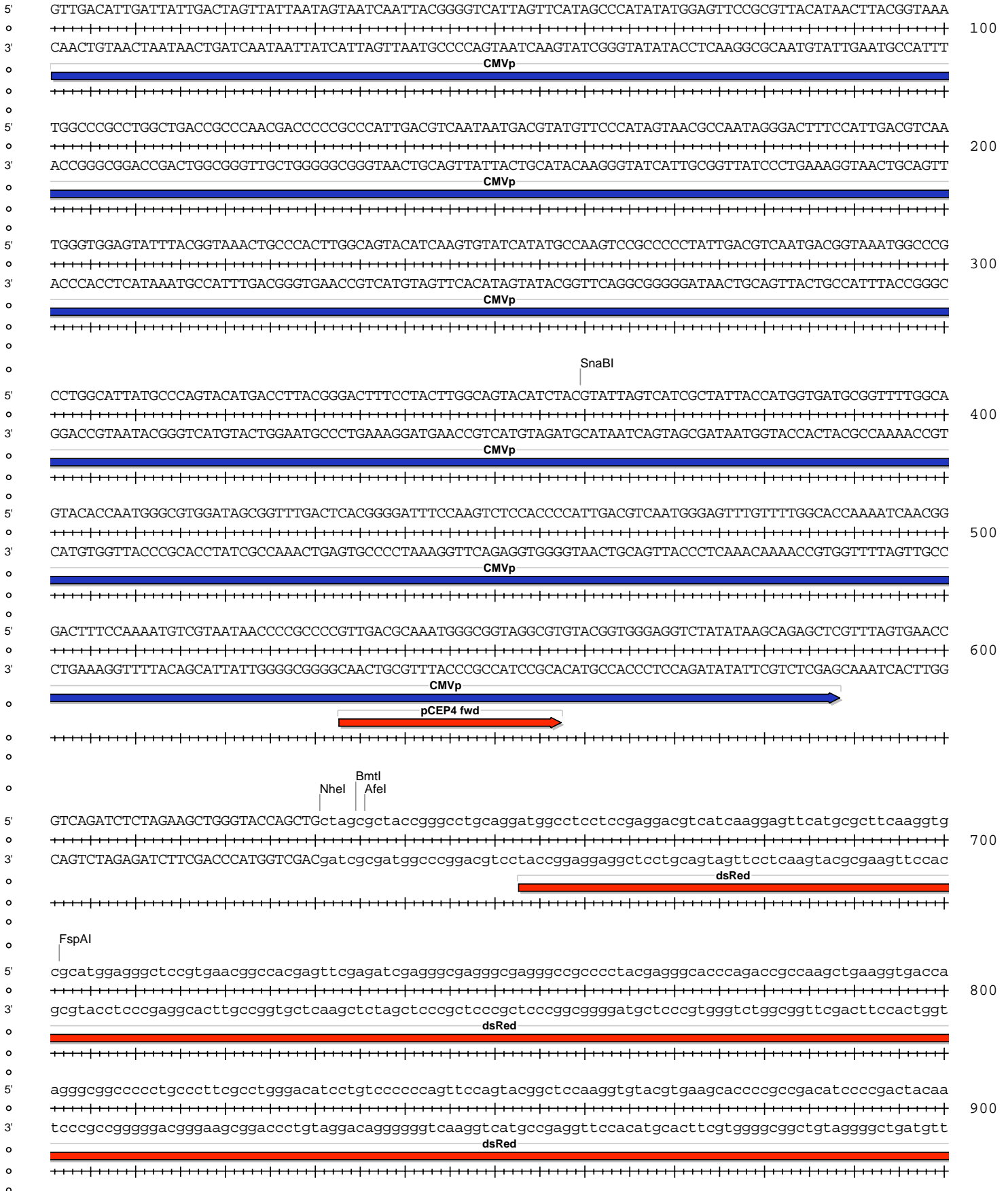


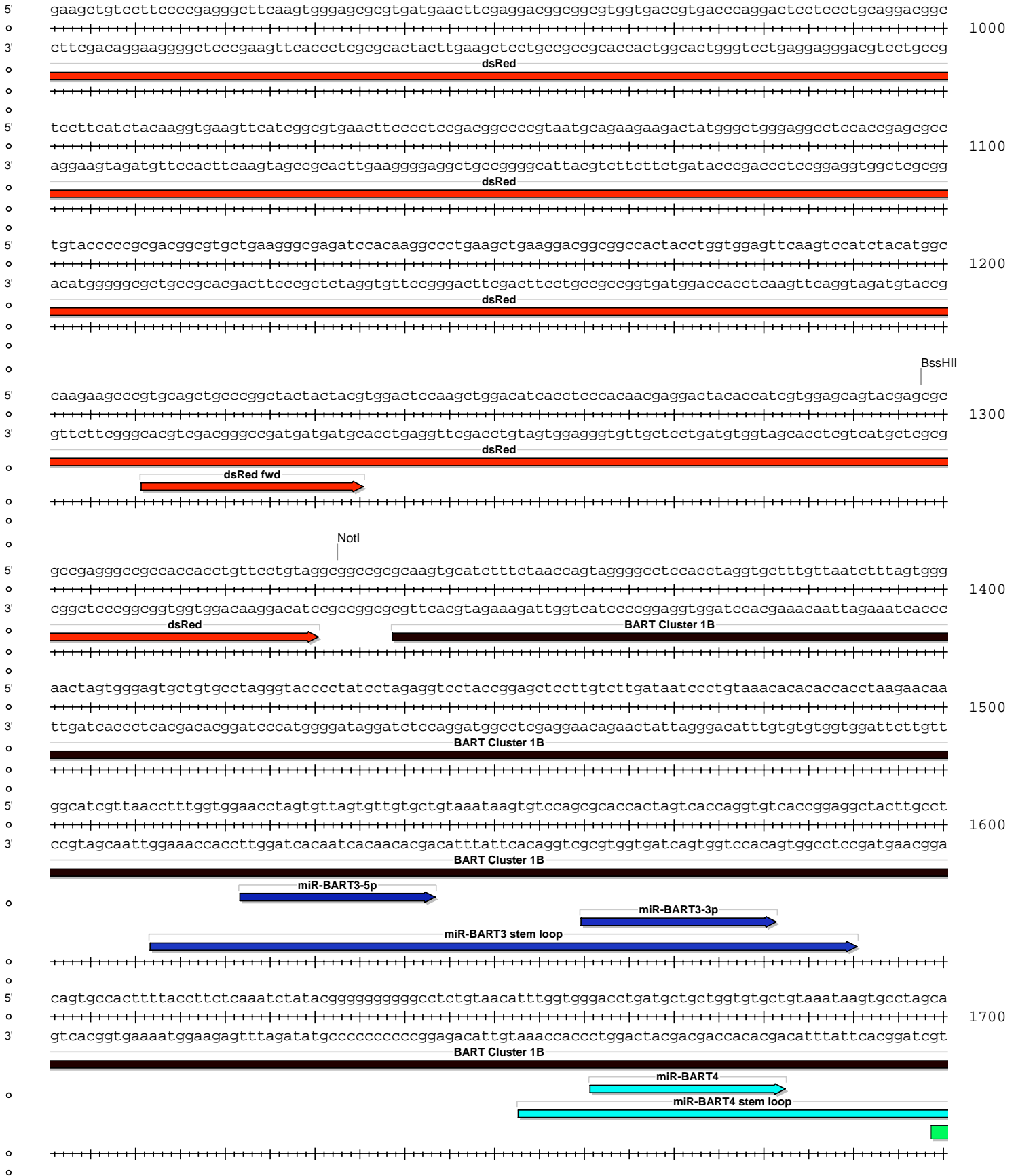
pCEP4-dsRed-BART1-6

Absent Sites	0	AbsI,AfIII,AscI,BarI,BarI',BbeI,BclI,BlpI,BsiWI,BstZ17I,FseI,HindIII,KasI,MauBI,MreI,NaeI,NarI,NgoMIV,PacI,PspXI,PsrI,PsrI',SapI,SfiI,SfoI,SgrDI,SphI,Swal,XhoI
AarI	1	2562
AfeI	1	636
AgeI	1	2148
AjuI	1	11252
AjuI'	1	11220
AsiSI	1	10903
BaeI	1	4271
BaeI'	1	4238
BamHI	1	2801
BbvCI	1	5957
BmiI	1	635
BsrGI	1	12278
BssHII	1	1298
BstBI	1	10390
EcoNI	1	7992
EcoRV	1	3791
FspAI	1	702
NheI	1	631
NotI	1	1333
NruI	1	10089
PmeI	1	2076
PmlI	1	2689
PshAI	1	10566
SgrAI	1	6158
SnaBI	1	360
SrfI	1	1848
XmnI	1	8488

pCEP4-dsRed-BART1-6



pCEP4-dsRed-BART1-6



pCEP4-dsRed-BART1-6

5' catcacgtaggcaccaggtgtcaccagggctacttgctcgcgcatctcctcaccggagaaggggttaacaacccgtggggggtcttagtggaagtgacg
 1800
 3' gtagtgcatccgtggtccacagtggccccgatgaacggagccgtagaggagtgccctctccccaatggttgggacccccagaaatcaccttcaactgc

BART Cluster 1B

miR-BART1-5p

miR-BART1 stem loop

miR-BART4 stem loop

ebv-mir-BART4-3P

SrfI

5' tgctgtgaatacaggtccatagcaccgctatccactatgtctcgcccgggctatatgtcgccttacctcccctgtatagtcacgacccccaccgaaccagg
 1900
 3' acgacacttatgtccaggtatcgtggcgataggtgatacagagcgggcccgaataacagcgggaatggaggggacatatcagtgtggggtggcttgggtcc

BART Cluster 1B

miR...5p

miR-BART1-3p

miR-BART1 stem loop

5' catgatgtagaataaaatattatgcatcgtcttctaactctgtgcccgttggagggaaacatgaccacctgaagtctgtaaccaggtcagtggttttgtt
 2000
 3' gtactacatcttattttaaaatacgttagcagaagattagacacggcgaacctcccttgtactggtggacttcagacaattgggtccagtcaccaaataca

BART Cluster 1B

miR-BART15

miR-BART15 stem loop

PmeI

5' tccttgatagagacacaaggactgccagccccgttgggagggggtggggtaacgggagaatttgggctcgtttaacaaagcctcctctgatgctctg
 2100
 3' aggaactatctctgtgttctctgacggtcggggcaacccccccccaccaccatgcctcttaaaccggagcaaatgtgttcggaggagactacggagac

BART Cluster 1B

miR-BART15

miR-BART15 stem loop

miR...op

AgeI

5' tggcacctcaaggtgaatatagctgcccatcgacgtatcgctggaacccggtgggcccgtgttcacctaaagtgaacgaaggtctgtcagccgccagggt
 2200
 3' accgtggagttccacttataatcgacgggtagctgcatagcgaccttggccaccggcgacaagtggatttcaactcgttccagacagtcggcggtcca

BART Cluster 1B

miR-BART5

miR-BART5 stem loop

ebv-mir-BART5-3P

5' ccgtttaccaggctttcaggtgtggaatttagatagagtggtgtgtgctctgtttaattacaccaagatcaccaccctctatccatatcccacaattg
 2300
 3' ggcaaatggtccgaaagtccacaccttaaactctatctcaccacacacgagaacaaattaatgtggttctagtgggtgggagataggtatagggtgttaac

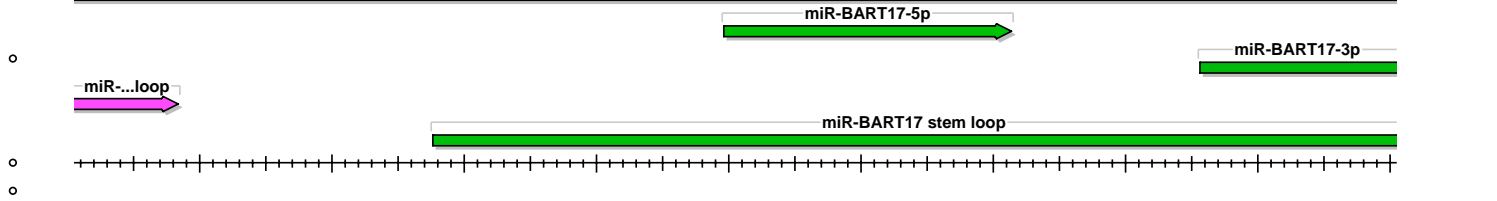
BART Cluster 1B

miR-BART16

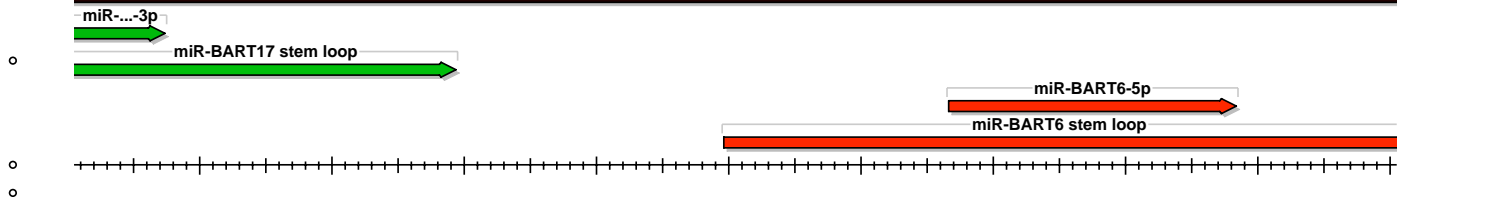
miR-BART16 stem loop

pCEP4-dsRed-BART1-6

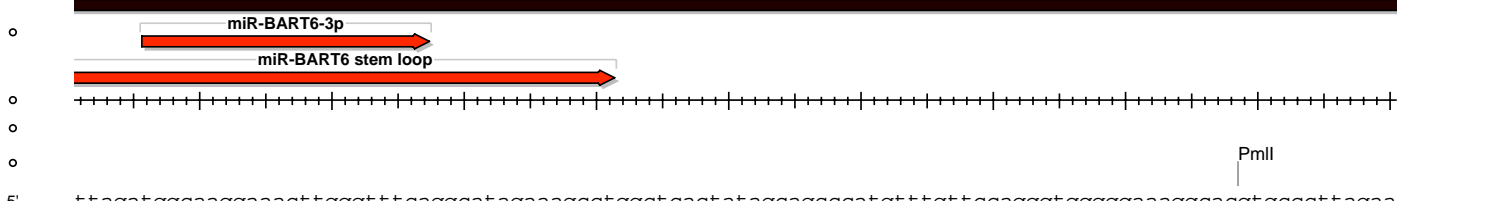
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 3' tatttgaggcgtacaggttggtggtgcaactgtcctacaccgtgggattctcctgcgtccgatatgtccaataatgggtcaggaacatcggaccaca
 BART Cluster 1B



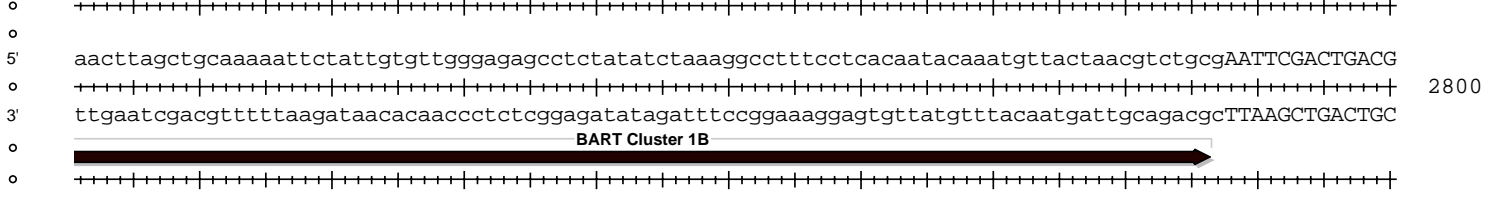
5' cccttagtgggacgcaggcctaggtagcatcatttactactaaaagcagtgacctgttggactttaaggttggccaatccataggctttttttgtga
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 BART Cluster 1B



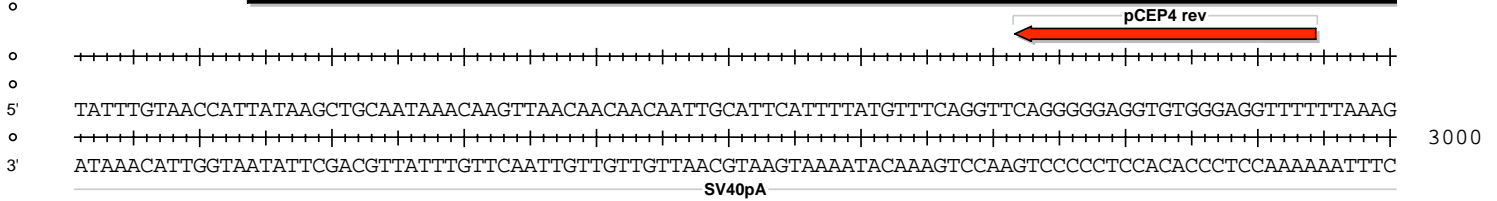
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 3' tttgggcccttagcctgatcggaaatctcattgagttccggttcgtaaagtgaggcgtttacgtggtacattgggtgtctagatttgactttcaacgtcga
 Aarl
 BART Cluster 1B



5' ttagatggcaaggaaacttgggtttcaggcatagaagcctggctcactatagcagcccatgttgttccagggtgggggaaaggcacgtgccccttagaa
 3' aatctaccgttccttgaacccaaagtccgtatcttccgaccgagtgatcgtcgggtacaaacaaggtcccaccccttccggtgcacgggaatcct
 PmlI
 BART Cluster 1B



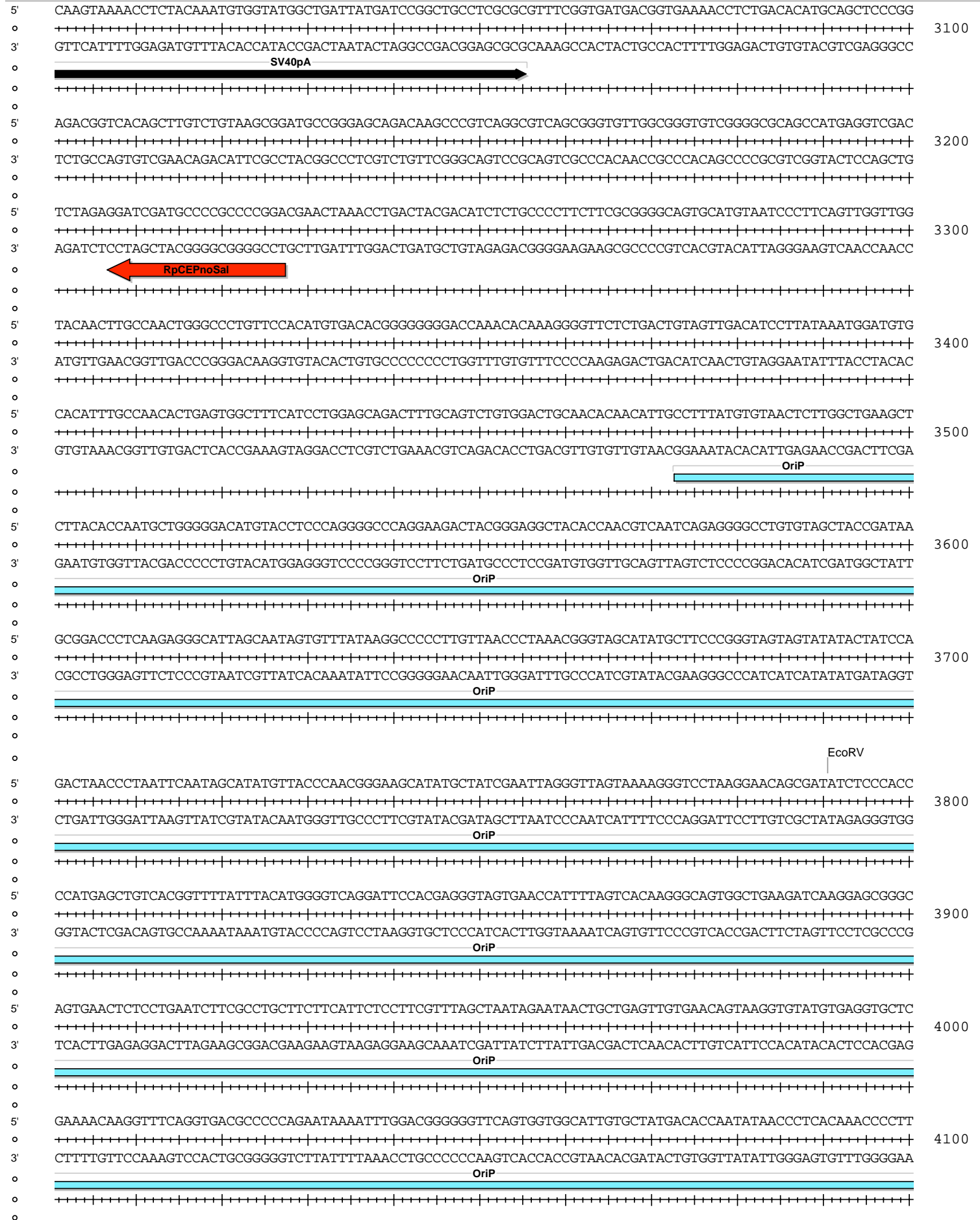
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 BART Cluster 1B



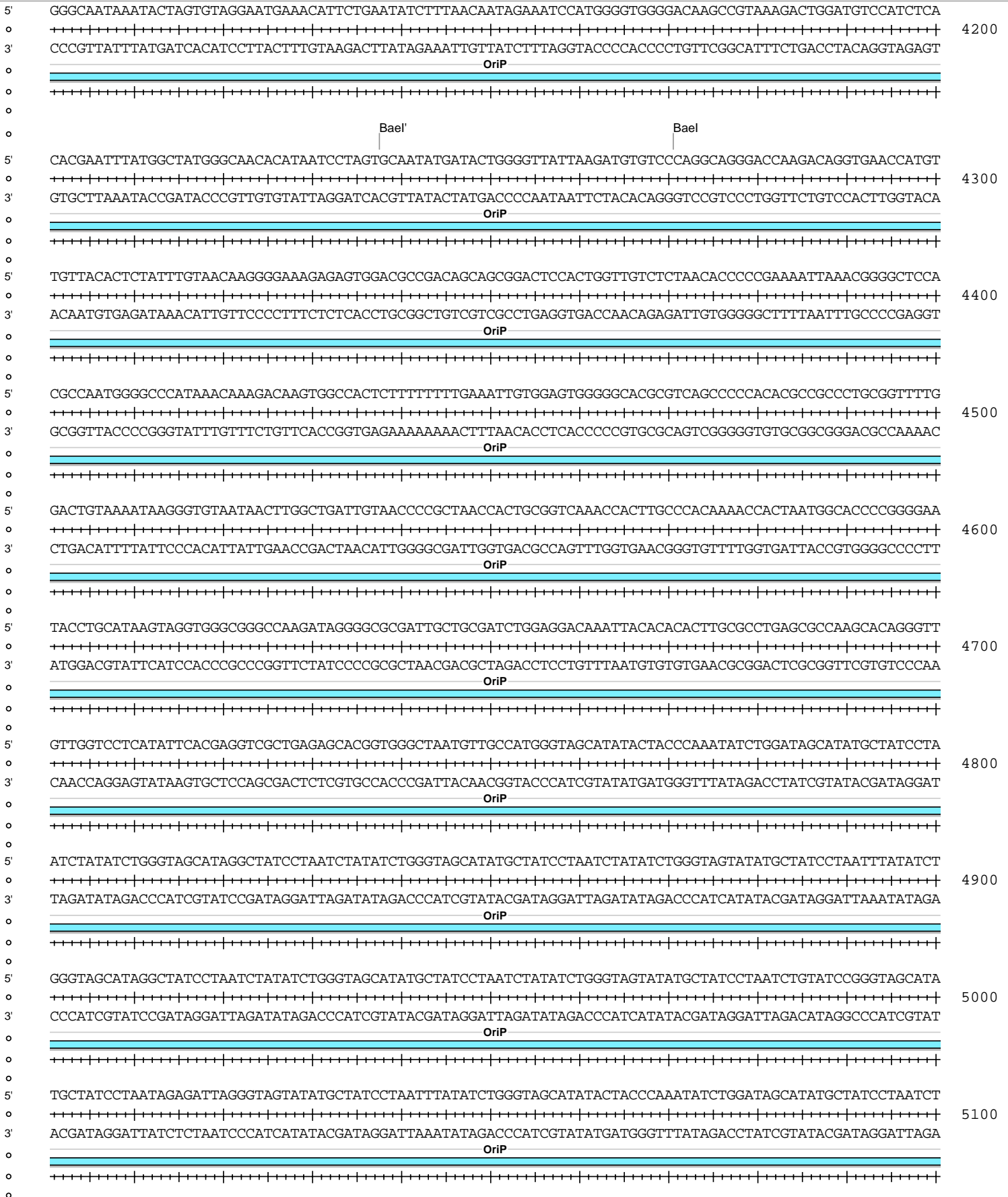
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 SV40pA



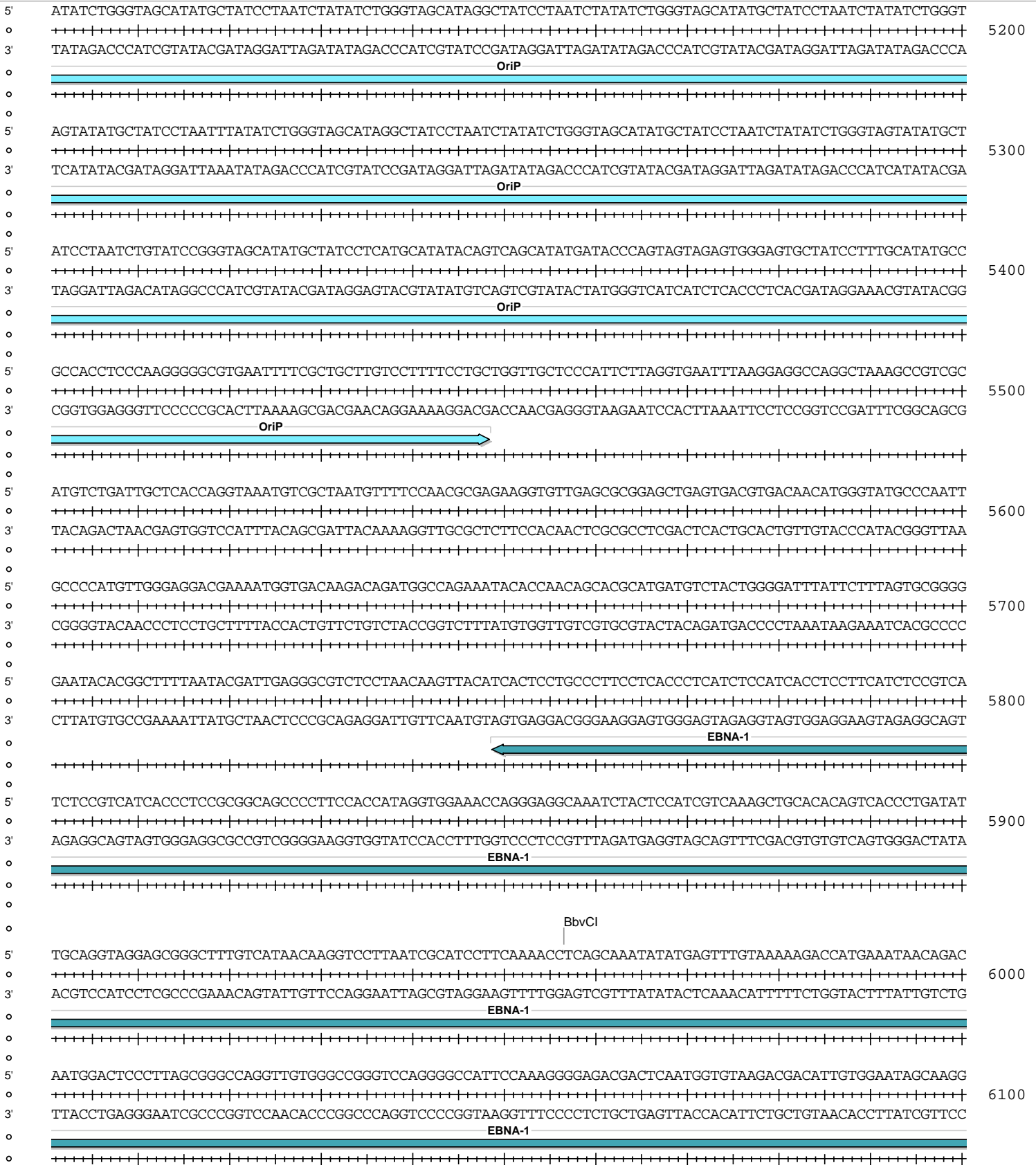
pCEP4-dsRed-BART1-6



pCEP4-dsRed-BART1-6

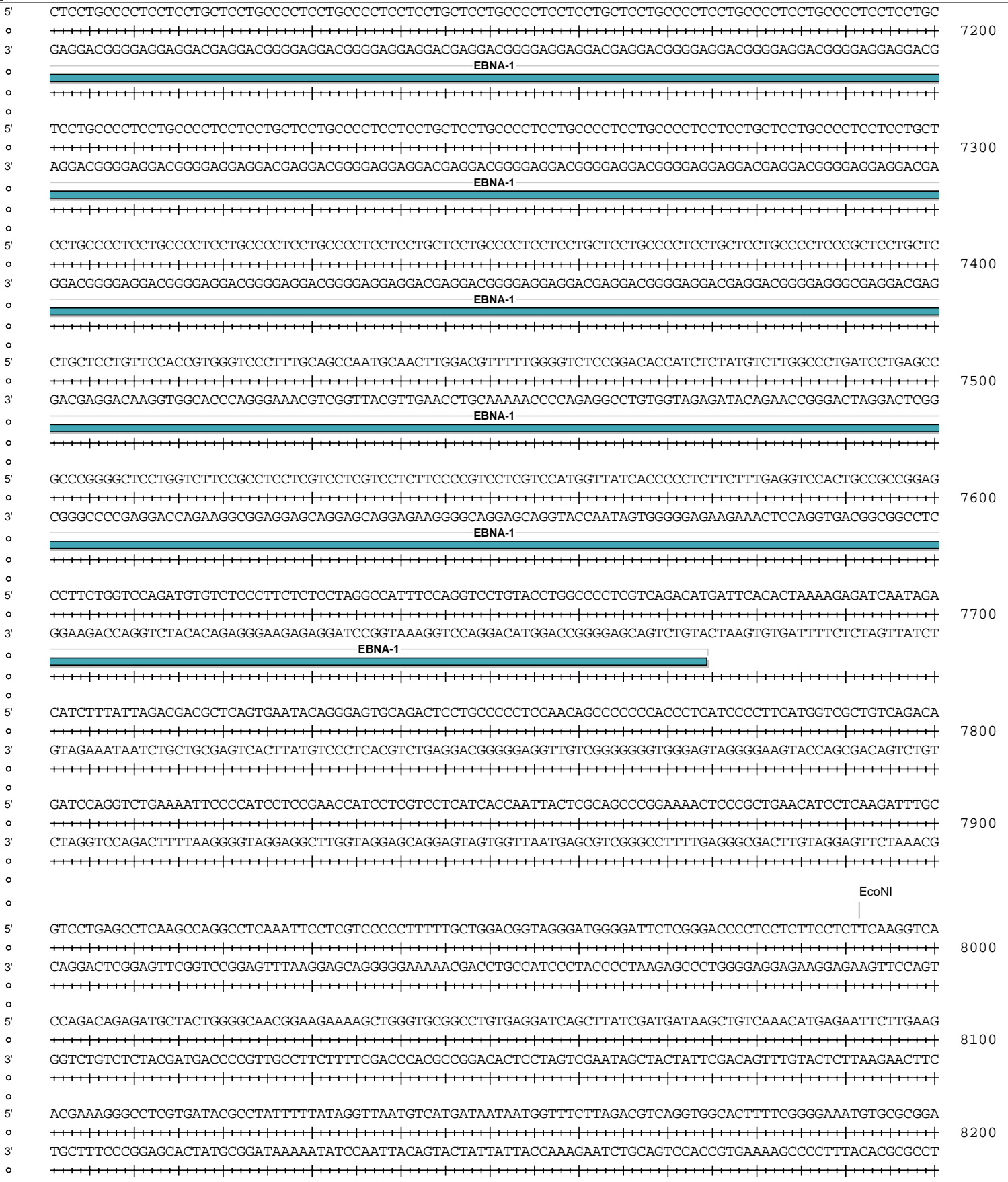


pCEP4-dsRed-BART1-6

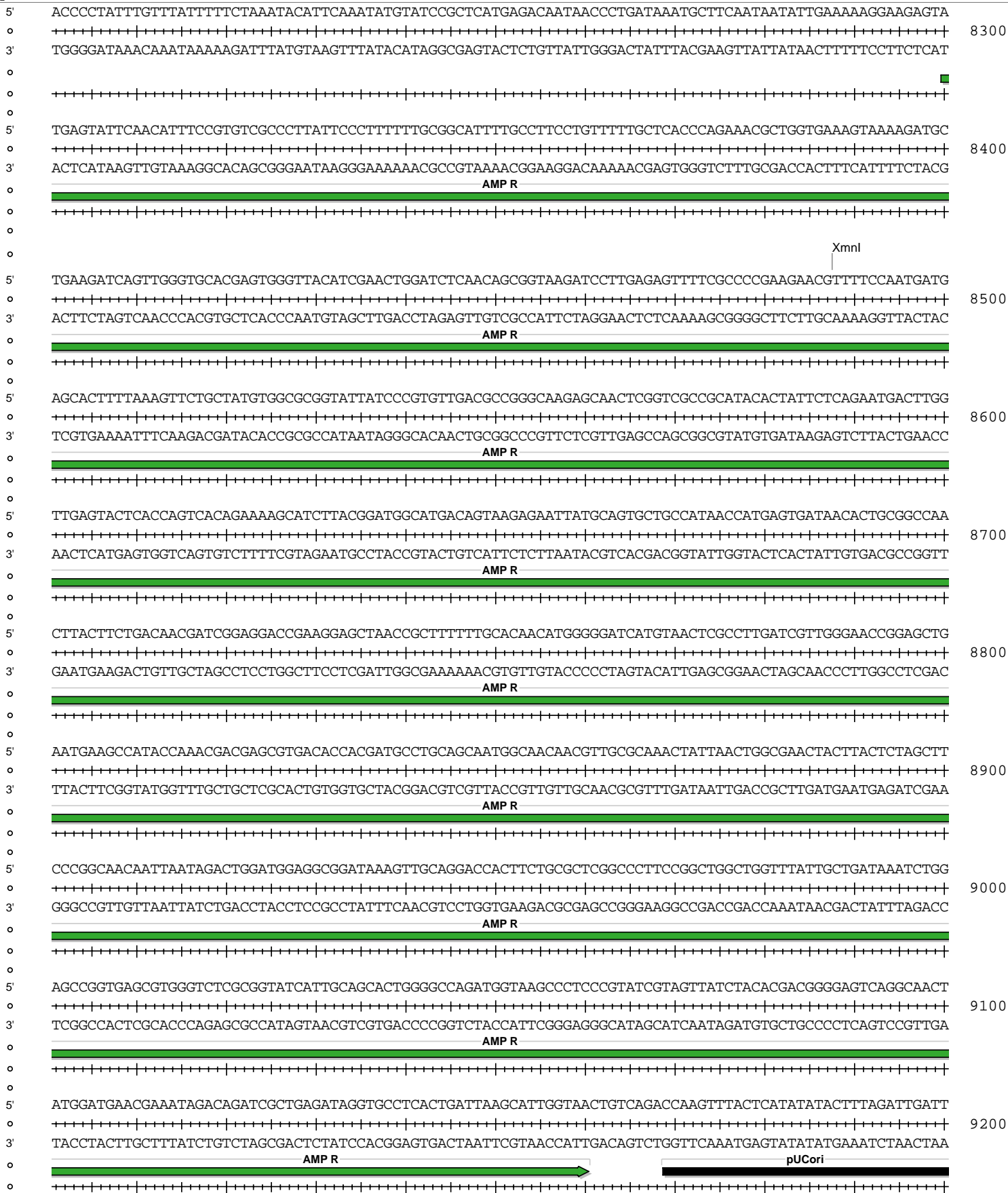


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o
3' CGTCAAGGAGCGGAATCCAACATTTCCCTCCAGAATGATGGAGGTATATGCTTGTGTGGCCGCTGGGTTCAAGGAAGCAGCCATCAGGAAAGATGCAC TG
o
EBNA-1
o
o
o
5' TCCTAGCCAGGAGAGCTCTTAAACCTTCTGCAATGTTCTCAAATTTCCGGTTGGAACCTCCTTGACCACGATGCTTCCAAACCACCTCCTTTTGGCG 6300
o
3' AGGATCGTCTCTCGAGAATTTGGAAGACGTTACAAGAGTTTAAAGCCCAACCTTGGAGGAACTGGTGTACGAAAGGTTTGGTGGGAGGAAAAACGC
o
EBNA-1
o
o
o
5' CCTGCCTCCATCACCTGACCCCGGGTCCAGTGCTTGGGCCCTTCTCCTGGGTGATCTGCGGGCCCTGCTCTATCGCTCCCGGGGGCACGTGAGGCTCA 6400
o
3' GGACGGAGGTAGTGGACTGGGGCCCGAGGTCACGAACCCGGAAGAGGACCCAGTAGACGCCCCGGGACGAGATAGCGAGGGCCCCGTGAGTCCGAGT
o
EBNA-1
o
o
o
5' CCATCTGGGCCACCTTCTTGGTGGTATTCAAATAATCGGCTTCCCCTACAGGTGGAATAATGGCCTTCTACCTGGAGGGGGCTGCGCGGTGGAGACC 6500
o
3' GGTAGACCCGGTGAAGAACCACCATAAGTTTATTAGCCGAAGGGGATGTCCACCTTTTACCGGAAGATGGACCTCCCCGGACGCGCCACCTCTGG
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EBNA-1
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5' CGGATGATGATGACTGACTACTGGGACTCCTGGGCCCTTTTTCTCCACGTCCACGACCTCTCCCCTGGCTCTTTCACGACTTCCCCCTGGCTCTTTC 6600
o
3' GCCTACTACTACTGACTGATGACCTGAGGACCCGGAGAAAAGAGGTGCAGGTGCTGGAGAGGGGACCGAGAAAGTGCTGAAGGGGGGACCGAGAAAG
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EBNA-1
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5' ACGTCTCTACCCCGGGCCCTCCACTACCTCCTCGACCCGGCCTCCACTACCTCCTCGACCCGGCCTCCACTGCCTCCTCGACCCGGCCTCCACCT 6700
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EBNA-1
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5' CCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTG 6800
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3' GGACGAGGACGGGGAGGACGAGGACGGGGAGGAGGACGAGGACGGGGAGGACGGGGAGGACGAGGACGGGGAGGACGGGGAGGACGAGGACGGGGAGGAC
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5' TGCCCCCTCCTGCTCCTGCCCTCCTGCCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCCCT 7000
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5' CCTGCCCTCCTCCTGCTCCTGCCCTCCTGCTCCTGCCCTCCTGCCCCTCCTGCCCCTCCTGCTCCTGCCCTCCTCCTGCTCCTGCCCTCCTGCC 7100
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3' GGACGGGGAGGAGGACGAGGACGGGGAGGACGAGGACGGGGAGGACGGGGAGGACGAGGACGGGGAGGAGGACGAGGACGGGGAGGACGGGGAGGACGGG
o
EBNA-1
o
o
o



pCEP4-dsRed-BART1-6



pCEP4-dsRed-BART1-6

5' TAAACCTTCATTTTAAATTTAAAAGGATCTAGGTGAAGATCCTTTTGGATAATCTCATGACCAAATCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTC
 9300
 3' ATTTTGAAGTAAAAATTAATTTTCTTAGATCCACTTCTAGGAAAAACTATTAGAGTACTGGTTTATAGGGAATTGCACTCAAAGCAAGGTGACTCGCAG
 pUCori

5' AGACCCCGTAGAAAAGATCAAAGGATCTTCTGAGATCCTTTTCTGCGCGTAATCTGCTGCTTGCAAACAAAAAACCCGCTACCAGCGGTGGTT
 9400
 3' TCTGGGCATCTTTTCTAGTTTCTTAGAAGAACTCTAGGAAAAAAGACGCGCATTAGACGACGAACGTTTGTTTTGGTGGCGATGGTCGCCACCAA
 pUCori

5' TGTTCGCGGATCAAGAGCTACCAACTCTTTTCCGAAGGTAAGTGGCTTCAGCAGAGCGCAGATACCAAATACTGTCTTCTAGTGTAGCCGTAGTTAG
 9500
 3' ACAACGGCCTAGTTCTCGATGGTTGAGAAAAAGGCTTCCATTGACCGAAGTCGTCTCGCGTCTATGGTTTATGACAGGAAGATCACATCGGCATCAATC
 pUCori

5' GCCACCACTTCAAGAACTCTGTAGCACCGCTACATACCTCGCTCTGCTAATCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGG
 9600
 3' CGGTGGTGAAGTCTTGAGACATCGTGGCGGATGTATGGAGCGAGACGATTAGGACAATGGTCACCGACGACGGTCACCGCTATTGACACAGAATGGCC
 pUCori

5' GTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGTTCGGGCTGAACGGGGGTTTCGTGCACACAGCCAGCTTGGAGCGAACGACCTACACCGAA
 9700
 3' CAACCTGAGTTCGTCTATCAATGGCCTATTCCGCGTCGCCAGCCGACTTGCCCCCAAGCACGTGTGTGGGTCGAACCTCGCTTGTGGATGTGGCTT
 pUCori

5' CTGAGATACCTACAGCGTGAAGCTATGAGAAAGCGCCACGCTTCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGC
 9800
 3' GACTCTATGGATGTCGACTCGATACTCTTTCGCGGTGCGAAGGGCTTCCCTCTTTCGCGCTGTCCATAGGCCATTGCGCCGTCCAGCCTTGTCTCTCG
 pUCori

5' GCACGAGGGAGCTTCCAGGGGAAACGCCCTGGTATCTTTATAGTCCGTGCGGGTTTCGCCACCTTGACTTGAGCGTCGATTTTGTGATGCTCGTCAGG
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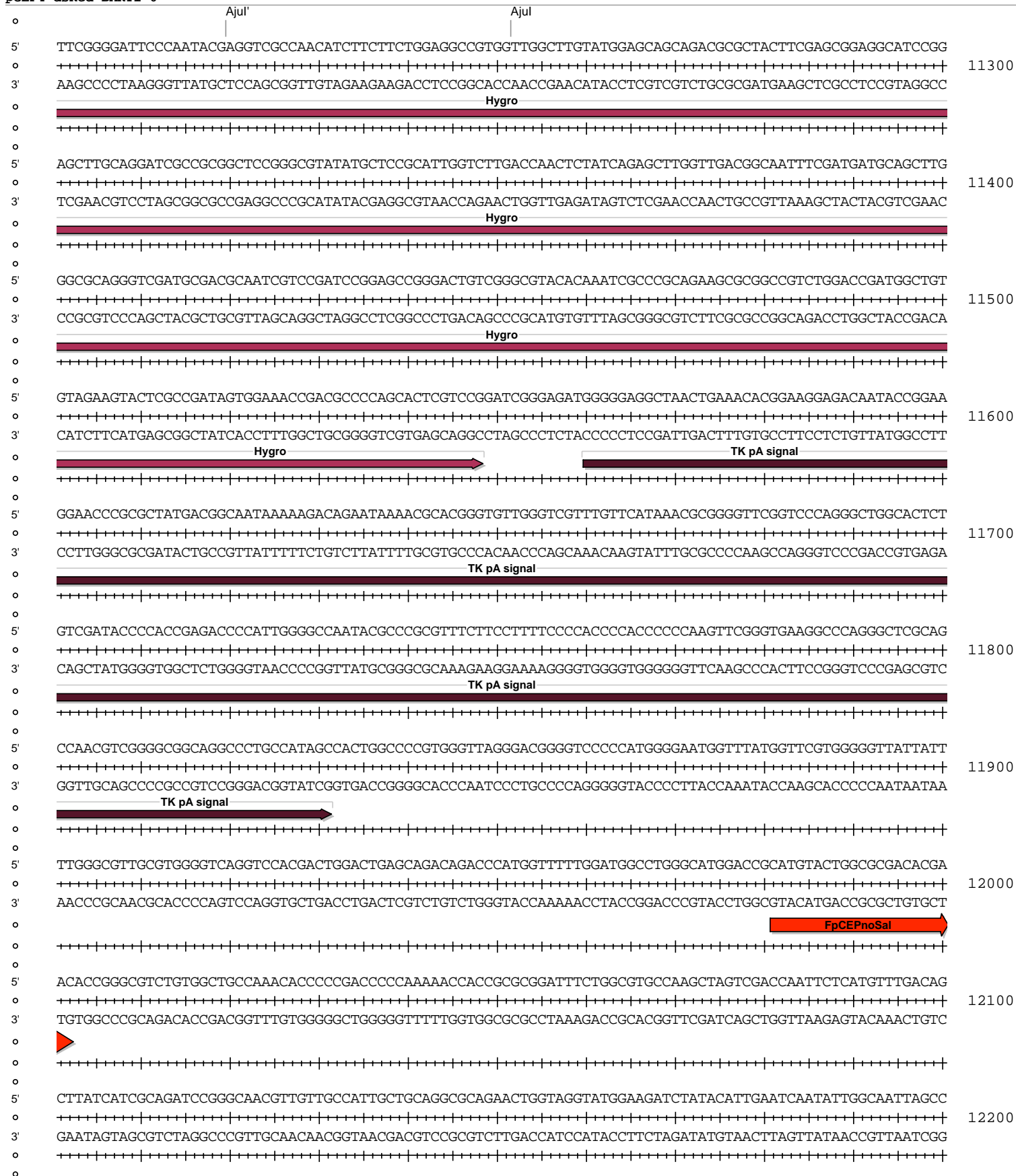
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 pUCori

5' CTGGACAGCATGGCTGCAACGCGGGCATCCCGATGCGCCCGAAGCGAGAAGAAATCATAATGGGAAGGCCATCCAGCCTCGCGTCGCGAACGCCAGCA
 10100
 3' GACCTGTGCTACCGACGTTGCGCCGTAGGGCTACGGCGGCTTCGCTCTTCTAGTATTACCCTTCCGGTAGGTTCGGAGCGCAGCGCTTGGGGTCGT
 NruI

5' AGACGTAGCCAGCGCTCGGCCCGAGATGCGCCGCTGCGGCTGCTGGAGATGGCGGACGCGATGGATATGTTCTGCCAAGGGTTGGTTTGGCGATTC
 10200
 3' TCTGCATCGGGTCGCGCAGCCGGGCTCTACGCGGCGCACGCGACGACCTTACCCTGCGCTACCTATAACAAGACGGTTCCCAACCAAACGCGTAAG

5' ACAGTTCCTCCGAAGAATTGATTGGCTCCAATCTTGGAGTGGTGAATCCGTTAGCGAGGTGCGCCCTGCTTCATCCCCGTGGCCCGTTGCTCGCGTTT
 10300
 3' TGTCAAGAGGCGTTCTTAACCTAACCGAGGTTAAGAACCTCACCACTTAGGCAATCGCTCCACGGCGGGACGAAGTAGGGGCACCGGGCAACGAGCGCAA





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o
                                     BsrGI
                                     |
5'  ATATTAGTCATTGGTTATATAGCATAAATCAATATTGGCTATTGGCCATTGCATACGTTGTATCTATATCATAATATGTACATTTATATTGGCTCATGTC
o  ++++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|
3'  TATAATCAGTAACCAATATATCGTATTTAGTTATAACCGATAACCGTAACGTATGCAACATAGATATAGTATTATACATGTAAATATAACCGAGTACAG
o  ++++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|
o
5'  CAATATGACCGCCAT
o  ++++++|+++++
3'  GTTATACTGGCGGTA
o  ++++++|+++++
o
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