

Absent Sites	0	AarI,Abst,Ajul,Ajul',AlfI,AlfI',AscI,AsiSI,BaeI,BaeI',BarI,BarI',BmgBI,BsaBI,BsiWI,BstBI,BstZ17I,FspAI,HpaI,MauBI,MreI,PmlI,PshAI,PsiI,PsrI,PsrI',RsrII,SbfI,SexAI,SgrAI,SrfI,Swal,Tth111I
AfeI	1	3195 (10816)
AgeI	1	3199 (10816)
AhdI	1	9897 (10816)
Alol	1	6297 (10816)
Alol'	1	6265 (10816)
AvrII	1	4454 (10816)
BamHI	1	3976 (10816)
BbvCI	1	1767 (10816)
BclI	1	5050 (10816)
BlpI	1	5119 (10816)
BsaXI	1	2191 (10816)
BsaXI'	1	2161 (10816)
BssHII	1	1054 (10816)
DrdI	1	9112 (10816)
EcoNI	1	1513 (10816)
EcoRI	1	6392 (10816)
FseI	1	1491 (10816)
FspI	1	10119 (10816)
NotI	1	3932 (10816)
PacI	1	7608 (10816)
PspXI	1	5230 (10816)
SacII	1	8209 (10816)
SapI	1	1443 (10816)
SfiI	1	4104 (10816)
SgrDI	1	2 (10816)
SpeI	1	253 (10816)
StuI	1	5745 (10816)
TstI	1	5946 (10816)
TstI'	1	5978 (10816)
XbaI	1	2576 (10816)
XcmI	1	6265 (10816)
XhoI	1	5230 (10816)

p201 (pPRIME-CMV-GFP-FF3)

5' attttgactagcggaggctagaaggagagagatgggtgagagcgtcagtattaagcgggggagaattagatcgcgatgggaaaaaattcgggtaaggc
 1200
 3' taaaactgatcgctccgatcttctctctctacccacgctctcgcagtcataatcgccccctcttaatctagcgetacccttttttaagccaattccg
 LTR

5' cagggggaagaaaaataaataaacatatagtatgggcaagcaggagctagaacgatcgcagttaatcctggcctgttagaaacatcagaaggct
 1300
 3' gtccccctttctttttatattttgtatatacataccggttcgctccctcgatcttgtaagcgtcaattaggaccggacaatctttgtagtcttcga
 LTR

5' gtagacaaatactgggacagctacaaccatcccttcagacaggatcagaagaacttagatcattatataatacagtagcaaccctctattgtgtgcatca
 1400
 3' catctgtttatgaccctgtcgatgttgtagggaagtctgtcctagttcttctgaaatctagtaataatattatgtcatcgttgggagataaacacacgtagt
 LTR

5' aaggatagagataaaagacaccaaggaagcttttagacaagatagagggaagagcaaaacaaaagtaagaccaccgcacagcaagcggccggcgcgctgat
 1500
 3' ttctctatctctatcttctgtggttccttcgaaatctgttctatctccttctcgttttggtttctattctggtggcgtgctcgttcgcccggccggcgcgacta
 LTR

5' cttcagacctggaggaggagatatgagggacaattggagaagtgaattatataaatataaagtagtaaaaattgaaccattaggagtagcaccaccaag
 1600
 3' gaagtctggacctcctcctctatactccctgttaacctcttcaacttaataatattatattcatcattttaacttggtaatcctcatcgtgggtggttc
 LTR HIV RRE

5' gcaaagagaagagtggtgcagagagaaaaagagcagtggggaataggagctttgttccttgggttcttgggagcagcaggaagcactatgggagcagcgt
 1700
 3' cgtttctcttctcaccacgtctctcttttctcgtcacccttatcctcgaaacaaggaacccaagaacacctcgtcgtcctcgtgataccgcgtcgca
 HIV RRE

5' caatgacgctgacggtacaggccagacaattattgtctggtatagtgcagcagcagaacaatttgctgagggttataggcgcacacagcatctgttgca
 1800
 3' gttactgcgactgcatgctcgggtctgtaataaacagaccatatacagctcgtcgtcttggtaaacgactcccgataactccgctgtgctgtagacaacgt
 HIV RRE

5' actcacagtctggggcatcaagcagctccaggcaagaatcctggctgtggaagatacctaaggatcaacagctcctggggatttggggtgctctgga
 1900
 3' tgagtgtcagaccctcgttagtctcgggtcgtttaggaccgacacctttctatggatttctagttgtcgaggaccctaaacccaacagacacct
 HIV RRE

5' aaactcatttgcaccactgctgtgccttggaaatgctagttggagtaataaatctctggaacagatttggaaatcacacgacctggatggagtgggacagag
 2000
 3' tttgagtaaacgtggtgacgacacggaaccttacgatcaacctcattattagagacctgtctaaaccttagtgtgctggacctacctcacctgtctc
 HIV RRE

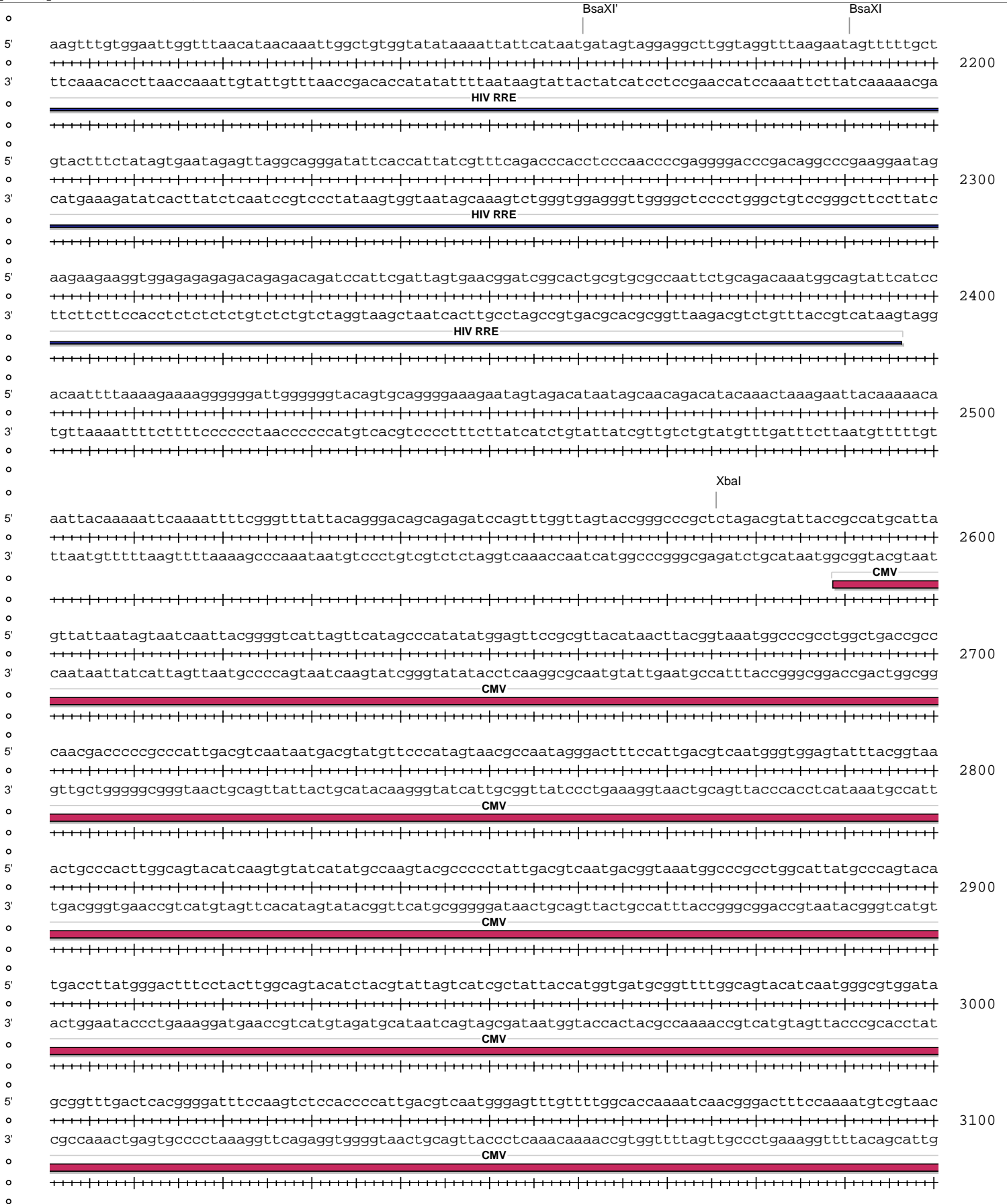
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 2100
 3' ttttaattgtaattggttcgaattatgtgaggaatgaacttcttagcgttttggctcgttctttcttacttgttcttaataaccttaatctatttaccg
 HIV RRE

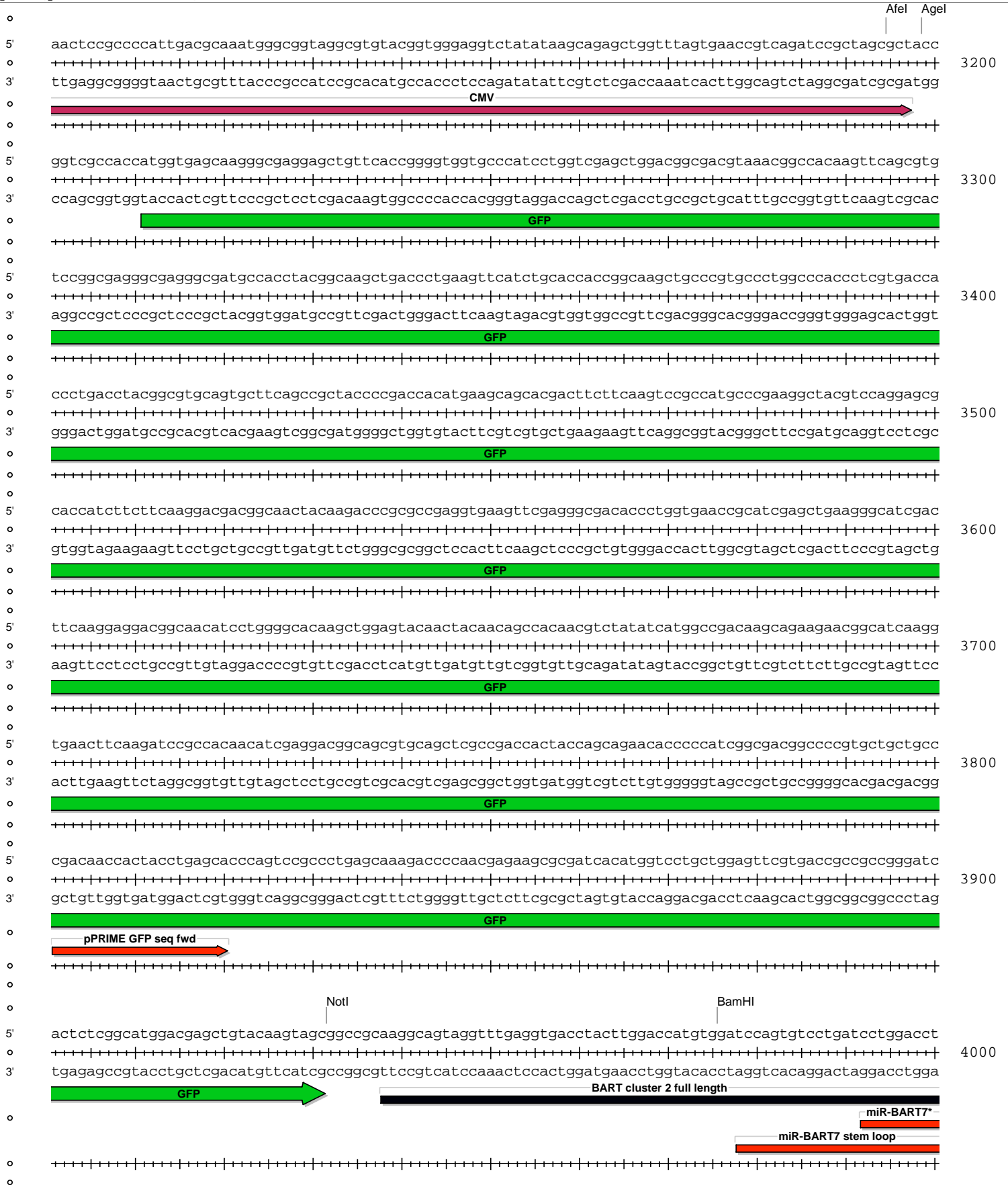
SapI

FseI

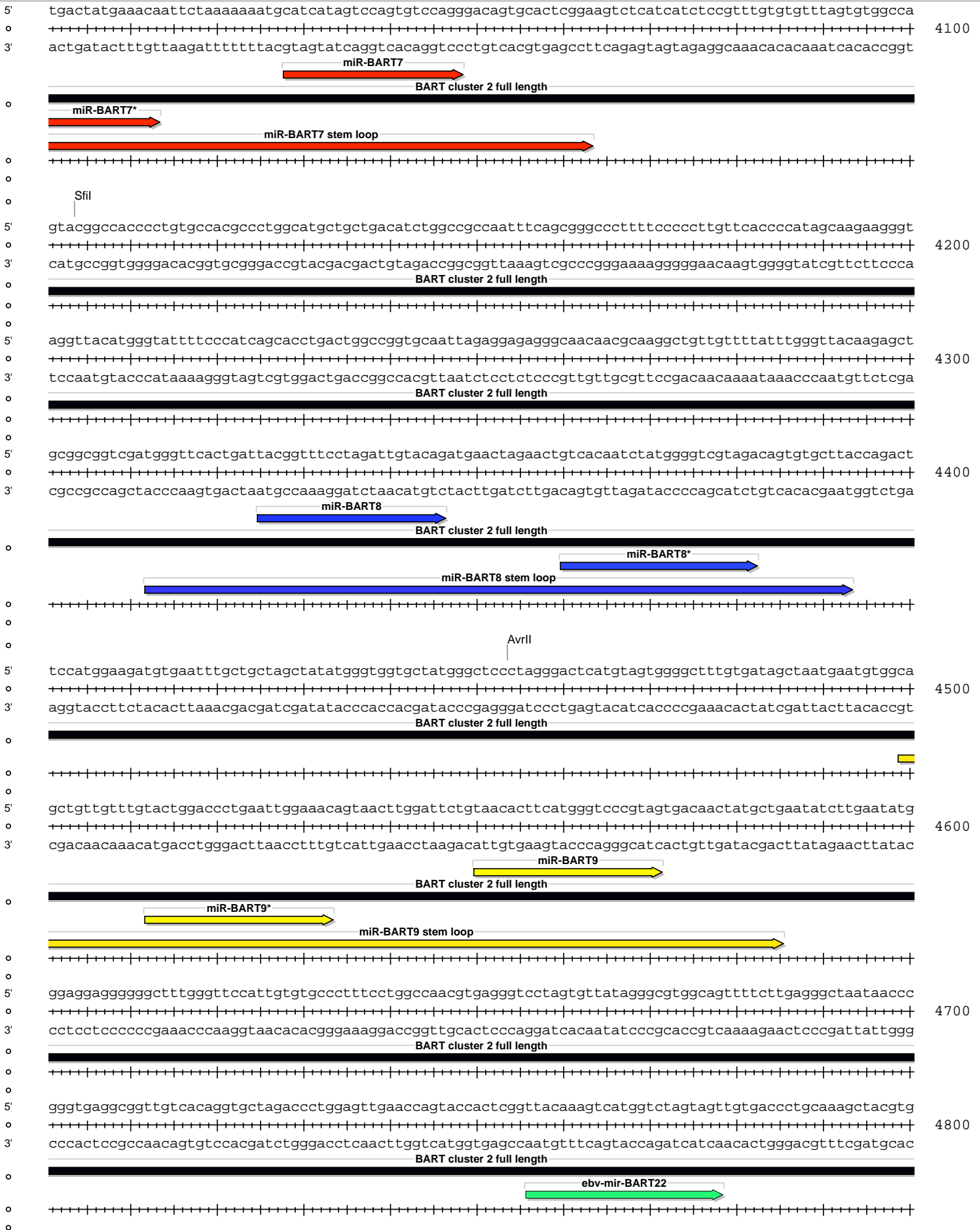
EcoNI

BbvCI

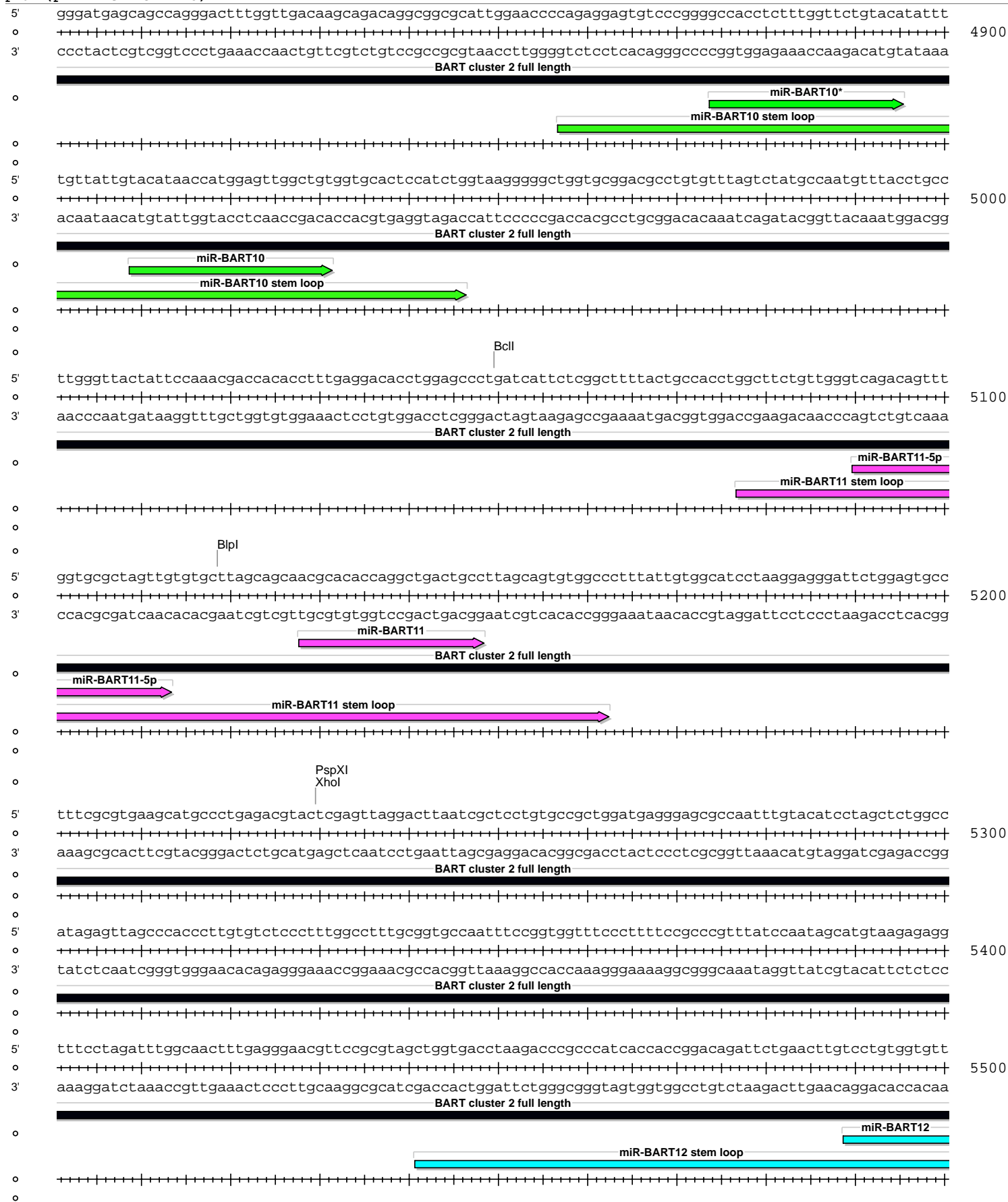




p201 (pPRIME-CMV-GFP-FF3)

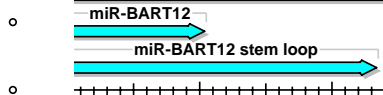


p201 (pPRIME-CMV-GFP-FF3)



p201 (pPRIME-CMV-GFP-FF3)

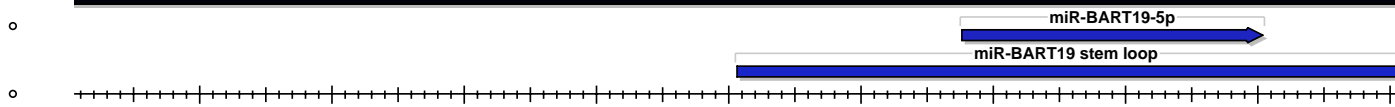
5' tgggtgtggttttggggtacgcaggagtacgttggaaatgctttggagccgagaggatgggcccgccttgtgcgcttatgtgttacacggtgccaataaccg
 3' accacaccaaaccatgcgctcctcatgcaaccttacgaaacctcggtctccctaccggggaacacgcgaatacacaaatgtgccacgggttatggc
 BART cluster 2 full length



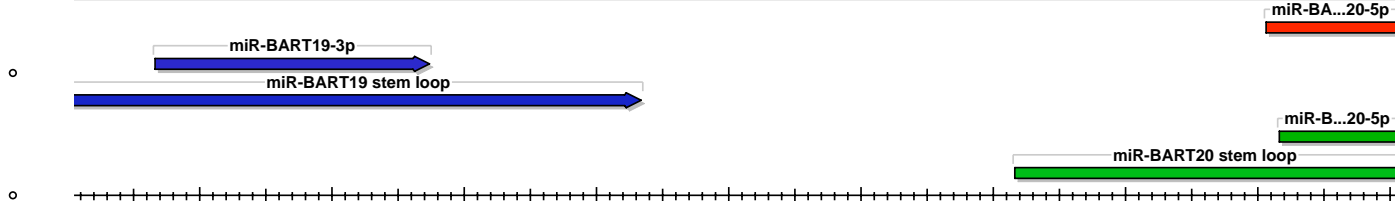
5' gcccggtgcggctgccccgtgacccgtgggccttaccttctggccatcgggggaccctgggtgctagggtcccttgtgttgccttctgccaatagggggga
 3' cgggccacgcccaggggactgggcacccggaatggaaggaccggtagcccctgggaccacgatcccagggaacacaacgaaagacgggtatccccct
 BART cluster 2 full length

5' aagcatcgcttcagaattggctgctccgttggaaacattgaggcctactgtatccgtgtcctgacaacattccccgcaaacatgacatgggttaattta
 3' ttcgtagcgggaagtcttaaccgacgaggcaaccttgtaaactccggatgacataggcacaggactgtgtgaagggcgcttgtactgtaccaattaat
 BART cluster 2 full length

StuI



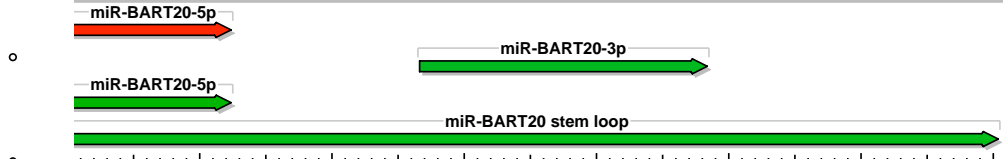
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 3' ttgtacaaaacaaacgaaccttacgagaatcccggaccttcgaacagtaacctaaagtagcaaggacttgatgtccgcatccggataaacatcgctccgt
 BART cluster 2 full length



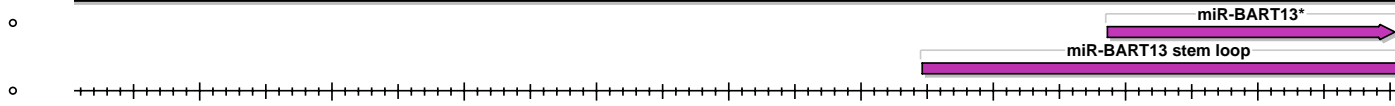
5' tgtcttcatcctgcgtagcgaatggcatgaaggcacagcctgttaccattggcacctttttccatgtaaacctccgtgatcctgggctccttggagac
 3' acagaagtaaggacgcatggcttaccgtacttccgtgtcggacaatggtaaccgtggaaaaaaggtagcatttggaggcactaggaccaggaaacctctg
 BART cluster 2 full length

TstI

TstI'



5' tcaagtgtgaattgtttgggtgttcggcgccaggcatctcgacgcttggaaatgtcaactcaacttgggcacctcgataaccggctcgtggctcgtacag
 3' agttcacacttaacaaaaccacaagccggtcccgtagagctgcaaccttacagttgagttgaaccctggagctattggccgagcaccgagcatgtc
 BART cluster 2 full length



p201 (pPRIME-CMV-GFP-FF3)

5' acgattgtttggctctgtaacttgcagggaaggctgacgatgtgtttagtctgccacttgcacccggcgctttgggtactcgggagactaatggggggt
 6200
 3' tgctaacaaccgagacattgaacggtccctgcccactgctacacaaatcagacggtgaacgtaggccgcgaaaccaatgagccctctgattacccccca



BART cluster 2 full length

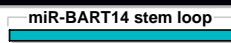


5' gtggatggcacaggctgggggtgagtctgggatgtccctggcgcttggctgcagcccatcgcacctctggggatgagatgttcaggggtggccggtacc
 6300
 3' caccataccgtgtccgacccccactcagacccctacagggaccgcgaacgacgtcgggtaagcgggagaccctactctacaagtcccaccggccatgg

XcmI
Alol'

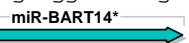
Alol

BART cluster 2 full length



5' ctacgctgccgatttacataataataattgtaaatgctgcagtagtaggatctggacgcgcgacctgctactcttcgaaacgcgaaccgaattcaagg
 6400
 3' gatgcgacggctaaatgtattatatttaacatttacgacgtcatcatccctagacctgcccgctggacgatgagaagccttgcgggtggcttaagttcc

EcoRI



BART cluster 2 full length

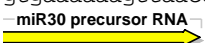


miR-BART14 stem loop

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 6500
 3' ccgatgaaatcctcgtaatagaacaaatgatcttgaactatggaacgatagagaaactatgtaaaaatgtttcgacttaattttaccatatttaatta

miR30 precursor RNA

5' cactttttcaattggaagactaatgctgtttaaacaacgcggcgacgcgcttcgaccgaataaaaacctgtgacggaagatcacttcgcagaataaaataaatc
 6600
 3' gtgaaaaaagttaaccttctgattacgcaaatgtgctgcccgcctgcccgaagctggcttattttggacactgccttctagtgaagcgtcttatttatttag



Cmr



5' ctgggtgctccctgttgataccgggaagccctgggccaacttttggcgaaaatgagacggtgatcggcacgtaagaggttccaactttcaccataatgaaat
 6700
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Cmr

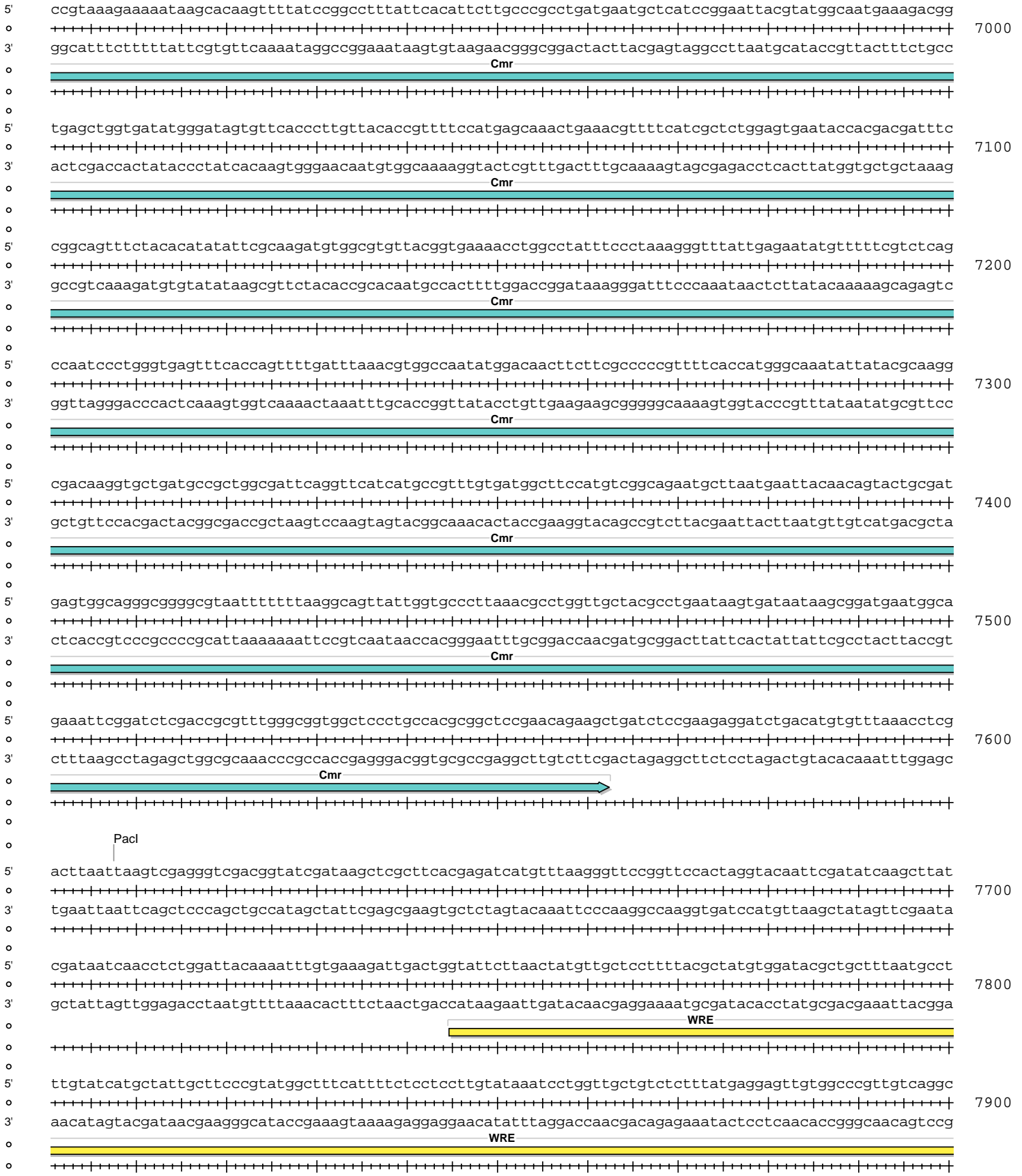
5' aagatcactaccggcgatatttttggagttgtcgagatcttcaggagctaaggaagctaaaatgggaaaaaaatcactggatataaccaccgttgatata
 6800
 3' ttctagtgatggccgcataaaaaactcaacagctctaaaagtctcgtattccttcgattttacctcttttttagtgacctatattggtggcaactatata

Cmr

5' tcccaatggcatcgtaagaacattttgagcatttcagtcagttgctcaatgtacctataaccagaccgttcagctggatattacggccttttaaga
 6900
 3' agggttaccgtagcatttcttgtaaaactcgtaaaagtcaagcaggttacatggatattggctcggcaagtcgacctataatgccggaaaaatttct

Cmr

p201 (pPRIME-CMV-GFP-FF3)



p201 (pPRIME-CMV-GFP-FF3)

5' gcttgcccttgagtgcttcaagtagtggtgcccgtctgtgtgtgactctggaactagagatccctcagacccttttagtcagtggtgaaaatctctag
 9000
 3' cgaacggaactcacaagttcatcacacacgggcagacaacacactgagaccattgatctctagggagctctgggaaaatcagtcacaccttttagagatc
 LTR

5' cagcatgtgagcaaaaggccagcaaaaggccaggaaccgtaaaaaggccgcggttctgctggcgtttttccataggctccgccccctgacgagcatcaca
 9100
 3' gtcgtacactcgttttccggtcgttttccggtccttggcatttttccggcgcaacgaccgcaaaaaggatccgaggcgggggactgctcgtagtgtt
 LTR

Drdl

5' aatcgacgctcaagttagaggtggcgaaccgacagactataagataaccaggcgtttccccctggaagctccctcgtgcgctctcctgttccgacc
 9200
 3' tttagctgcgagttcagctccaccgctttgggctgtcctgatatttctatggctcggcaaaaggggaccttcgaggagcagcgcgagaggacaaggctggg

5' tgccgcttaccggatacctgtccgcctttctccctcgggaagcgtggcgtttctcatagctcacgctgtaggtatctcagttcgggtgtaggtcgttcg
 9300
 3' acggcgaatggcctatggacaggcggaaagagggaaagcccttcgcaccgcgaaagagatcagagtgcgacatccatagagtaagccacatccagcaagc

5' ctccaagctgggctgtgtgcacgaacccccggttcagcccagaccgctgcgccttatccggtaactatcgtcttgagtccaaccggtaagacacgactta
 9400
 3' gaggttcgacccgacacacgtgcttgggggcaagtgggctggcgacgcggaataggccattgatagcagaactcaggttgggcatctctgtgctgaat

5' tcgccactggcagcagccactggtaacaggattagcagagcaggtatgtaggcgggtgctacagagttcttgaagtggggcctaactacggctacacta
 9500
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 9800
 3' ttgagtgaattccctaaaaccagtaactctaatagtttttctcctagaagtgatctaggaaaatttaatttttacttcaaaatttagttagatttcatata

AhdI

5' atgagtaaaacttggctctgacagttaccaatgcttaatcagtgaggcacctatctcagcgatctgtctatcttctgctcatccatagttgcctgactccccgt
 9900
 3' tactcatttgaaccagactgtcaatgggtacgaattagtcactccgtggatagagtcgctagacagataaagcaagtaggtatcaaccgactgaggggca

5' cgtgtagataactacgatacgggagggcttaccatctggcccagtgctgcaatgataccggcagagaccacgctcaccggctccagatttatcagcaata
 10000
 3' gcacatctattgatgctatgccctcccgaatggtagaccgggctcacgacgcttactatggcgtctgggtgcgagtgccgaggtctaaatagtcggtat

5' aaccagccagccggaaggccgagcgcagaagtggctcctgcaactttatccgcctccatccagctattaattggttgcgggaagctagagtaagtagtt
 10100
 3' ttggctcggctggccttcccggctcgcgctctcaccaggacgttgaaataggcggaggtaggtcagataatcaacaacggcccttcgatctcattcatcaa

