

Absent Sites	0	Aarl,AbsI,Ajul,Ajul',AlfI,AlfI',Alol,Alol',Ascl,AsiSI,AvrII,BaeI,BaeI',BamHI,BarI,BarI',BclI,BlpI,BmgBI,BsaBI,BsiWI,BspMI,BstBI,BstEII,BstXI,BstZ17I,FspAI,MauBI,MreI,PmlI,PshAI,PsiI,PspXI,PsrI,PsrI',RsrII,SbfI,SexAI,SfiI,SgrAI,Smal,SphI,SrfI,StuI,Swal,TstI,TstI',Tth111I,XcmI,XmaI
Acc65I	1	6218
AfeI	1	3195
AgeI	1	3199
AhdI	1	7683
ApaI	1	2572
BbeI	1	984
BbvCI	1	1767
BmtI	1	3194
BsaXI	1	2191
BsaXI'	1	2161
BsrGI	1	3921
BssHII	1	1054
Bsu36I	1	6214
DrdI	1	6898
EcoNI	1	1513
EcoO109I	1	2277
EcoRI	1	4178
FseI	1	1491
FspI	1	7905
HpaI	1	4058
KaI	1	980
KpnI	1	6222
MscI	1	5029
NarI	1	981
NheI	1	3190
NotI	1	3932
NsiI	1	2598
PacI	1	5394
PciI	1	5370
PpuMI	1	2277
PspOMI	1	2568
PstI	1	2380
SacII	1	5995
SanDI	1	2277
SapI	1	1443
SfoI	1	982
SgrDI	1	2
SpeI	1	253
XbaI	1	2576
XhoI	1	4073

p201 (pPRIME-CMV-GFP-FF3)

SgrDI

5' gtcgacggatcgggagatctcccgatcccctatggtgcactctcagtacaatctgctctgatgccgcatagttaagccagtatctgctccctgcttgtgt
 100
 3' cagctgcctagccctctagagggctaggggataccacgtgagagtcaggttagacgagactacggcgtatcaattcgggtcatagacgagggacgaacaca
 +

5' gttggaggtcgctgagtagtgcgcgagcaaaatctaagctacaacaaggcaaggcttgaccgacaattgcatgaagaatctgcttaggggttaggcgttt
 200
 3' caacctccagcgactcatcacgcgctcgttttaaattcgatggtgttccgttccgaactggctgtaacgtacttcttagacgaatccaatccgcaaaa
 +

Spel

5' gcgctgcttcgogatgtacgggcccagatatacgcgcttgacattgattattgactagttattaatagtaatacaattacgggggtcattagttcatagcccat
 300
 3' cgcgacgaagcgctacatgcccggctctatatgcgcaactgtaactaataactgatcaataattatcattagttaatgcccagtaatacaagtatcgggta
 +

5' atatggagttccgcttacataaacttacggtaaatggcccgcctggctgaccgcccacgacccccgccattgacgtcaataatgacgtatgttcccat
 400
 3' tatacctcaaggcgcaatgtattgaatgccatttacggggcggaccgactggcgggttgctggggcgggtaactgcagttattactgcatacaagggt
 +

5' agtaacgccaatagggactttccattgacgtcaatgggtggagatattacggtaaaactgcccaacttgccagtcacatcaagtgtatcatatgccaaagtacg
 500
 3' tcatgcggttatccctgaaaggtaactgcagttaccacactcataaatgccattgacgggtgaaccgtcatgtagttcacatagtatagcgttcatgc
 +

5' cccctattgacgtcaatgacggtaaatggcccgcctggcattatgccagtcacatgacctatgggactttcctacttggcagtcacatctacgtattag
 600
 3' gggggataactgcagttactgccatttaccggggcggaccgtaatacgggtcatgtactggaataccctgaaaggatgaaccgtcatgtagatgcataatc
 +

5' tcatcgctattaccatgggtgatgcgggttttggcagtcacatcaatgggcgtggatagcgggttgactcacggggatttccaagtctccacccattgacgt
 700
 3' agtagcgataatggtaccactacgcaaaaaccgtcatgtagttaccgcacactatcgccaaactgagtgcccctaaagggttcagaggtgggtaactgca
 +

5' caatgggagttgttttggcaccaaaatcaacgggactttccaaaatgctgtaacaactccgccccattgacgcaaatggcggttaggcgtgtacggtgg
 800
 3' gttaccctcaaacaaaaccgtggttttagttgcctgaaagggttttacagcatggttgaggcgggtaactgcgtttaccggccatccgcacatgccacc
 +

5' gaggtctatagaccagatctgagcctgggagctctctggctaactaggaaccactgcttaagcctcaataaagcttgcttgagtgctcaagtagtg
 900
 3' ctccagatatctggctagactcggaccctcgagagaccgattgatccctgggtgacgaattcggagttatttgaacggaactcacgaagttcatcac
 +

LTR

KasI
 NarI
 SfoI
 BbeI

5' tgtgccgctctgttgtgtgactctggtaaactagagatccctcagacccttttagtcagtggtgaaaaatctctagcagtgggcggccgaacagggacttgaa
 1000
 3' acacgggcagacaacacactgagaccattgatctctagggagctctgggaaaaatcagtcacaccttttagagatcgtcaccgcgggcttgctccctgaactt
 +

LTR

BssHII

5' agcgaagggaaccagaggagctctctcgacgcaggactcggcttgctgaagcgcgcacggcaagaggcgaggggcggcactggtgagtagcgcacaaa
 1100
 3' tcgctttcccttggctcctcagagagactgcgctcctgagccgaacgacttcgcgcggtgccgttctccgctccccgcccgtgaccactcatgcggtttt
 +

LTR

p201 (pPRIME-CMV-GFP-FF3)

5' atttgactagcggaggctagaaggagagagatgggtgcgagagcgtcagtagtaagcgggggagaattagatcgcgatgggaaaaattcgggtaaggc
 1200
 3' taaaactgatcgcctccgatcttctctctctaccacgctctcgcagtcataattcgccccctttaatctagcgtacccttttttaagccaattccg

LTR

5' caggggaaagaaaaatataataaacatatagtatgggcaagcaggagctagaacgattcgcagttaatcctggcctgtagaaacatcagaaggct
 1300
 3' gtcccccttcttttttatattttgtatatcataccggttcgctcctcgatcttgtaagcgtcaattaggaccggacaatctttgtagtcttccga

LTR

5' gtagacaaactgggacagctacaaccatcccttcagacaggatcagaagaacttagatcattatataatacagtagcaaccctctattgtgtgcatca
 1400
 3' catctgtttatgacctgtcgatgttgtaggaagtctgtcctagctctcttgaatctagtaatatattatgtcatcgtgggagataacacacgtagt

LTR

5' aaggatagagataaaaagacaccaaggaagctttagacaagatagaggaagagcaaaacaaaagtaagaccaccgcacagcaagcggccggcgcgctgat
 1500
 3' ttctatctctatcttctgtggttccttcgaaatctgttctatctccttctcgtttcttctcattctggtggcgtgctcgttcgccggccggcgcgacta

LTR

SapI

FseI

5' cttcagacctggaggaggagatagaggacaattggagaagtgaattatataaataaaagtagtaaaaattgaaccattaggagtagcaccaccaag
 1600
 3' gaagtctggacctcctcctctataactcctgtaacctctcacttaatatattatattcatcatttttaacttggtaatcctcatcgtgggtggttc

LTR

HIV RRE

5' gcaaagagaagagtggcagagagaaaaagagcagtggaataggagctttgttccttgggttcttgggagcagcaggaagcactatgggcgcagcgt
 1700
 3' cgtttctctctcaccacgtctctcttttctcgtcacccttatcctcgaacaaggaaccaagaacctcgtcgtcctcgtgataaccgcgctcgca

HIV RRE

5' caatgacgctgacggtacaggccagacaattatgtctggtatagtcagcagcagaacaatttgctgagggctattgaggcgcaacagcatctgttgca
 1800
 3' gttactgagactgccatgtccggtctgtaataacagaccatcacgctcgtcgtcttgtaaacgactcccgataactccgcgtgtcgttagacaacgt

HIV RRE

BbvCI

5' actcacagtctggggcatcaagcagctccaggcaagaatcctggctgtgaaagatacctaaaggatcaacagctcctggggattggggtgctctgga
 1900
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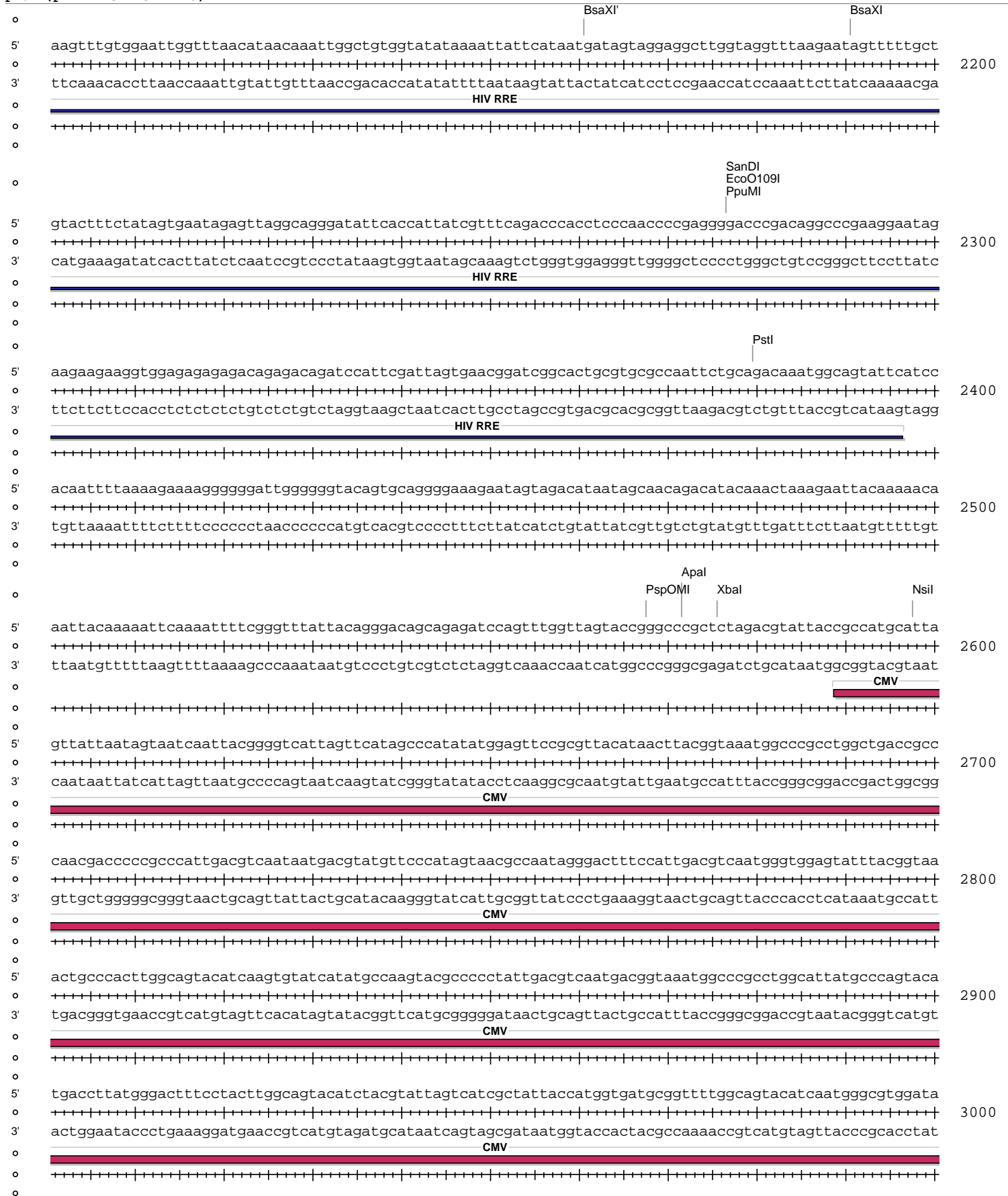
HIV RRE

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 2000
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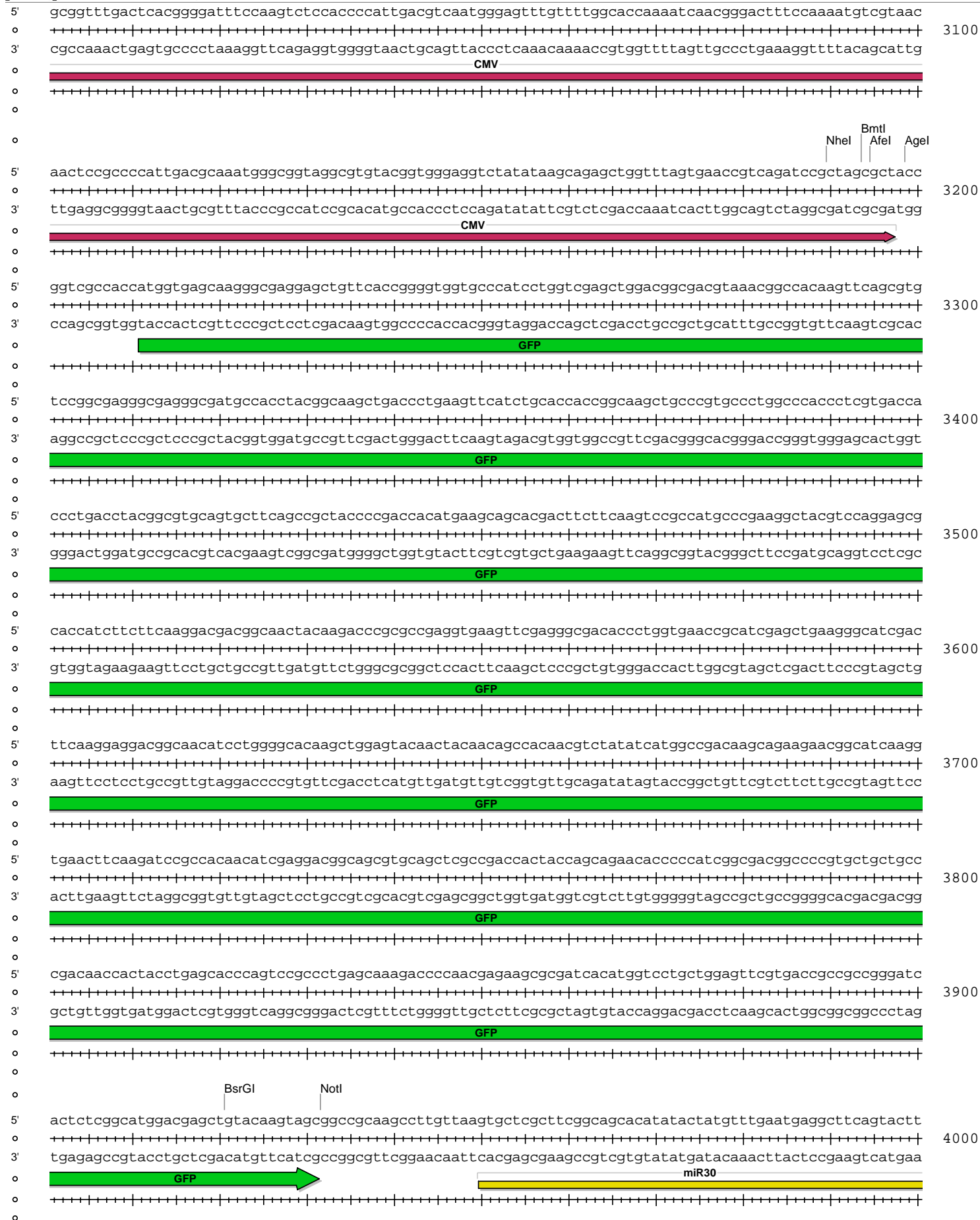
HIV RRE

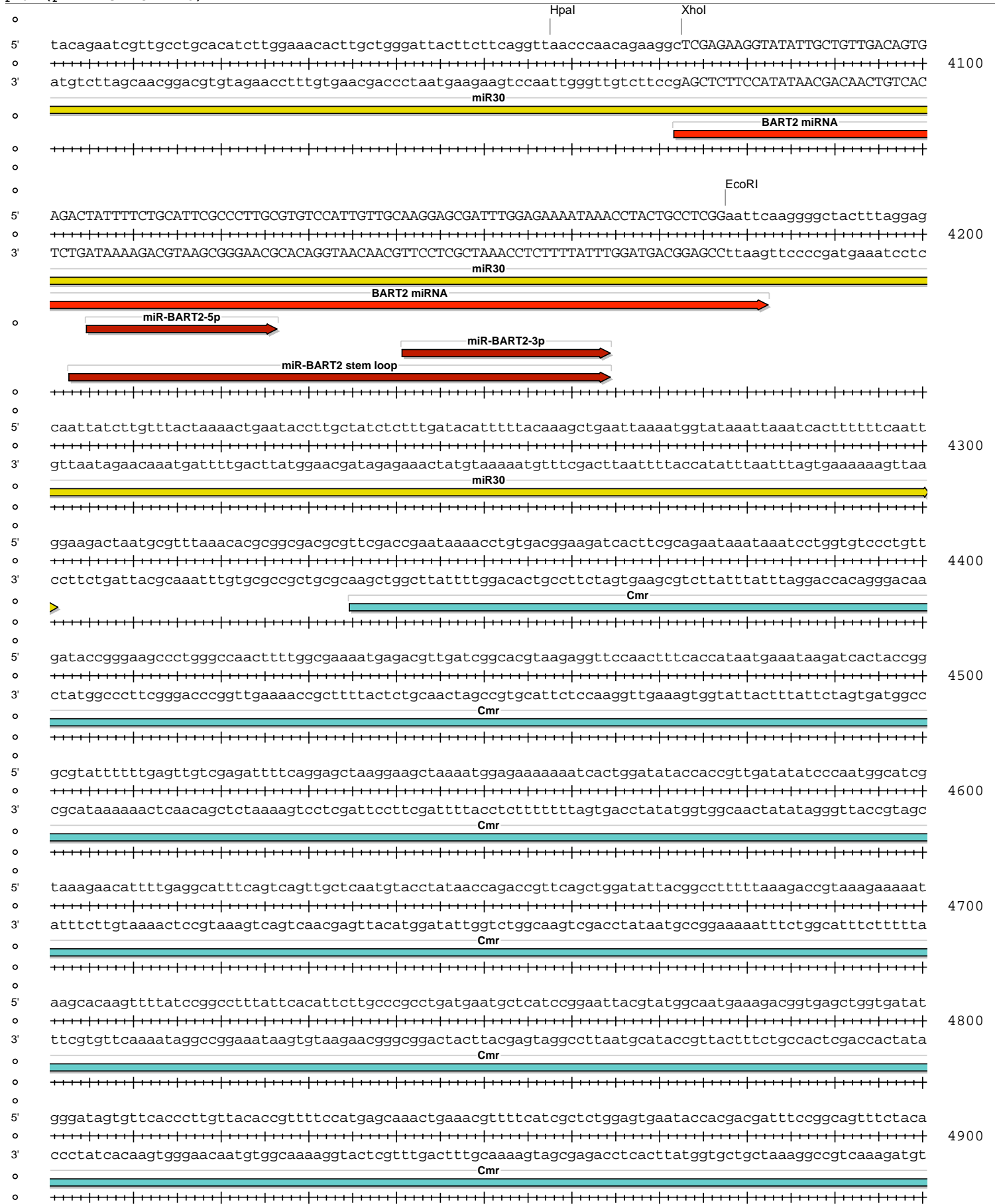
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 2100
 3' ttaattgttaatgtgttcgaattatgtgaggaattaacttcttagcgttttggtcgttcttcttacttgttcttaataaccttaacttatttaccg

HIV RRE



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p201 (pPRIME-CMV-GFP-FF3)

5' catatattcgaagatgtggcgtgttacggtgaaaacctggcctatttcctaaggggtttattgagaatatgttttctcagccaatccctgggtg
 3' gtatataagcgttctacaccgcacaatgccacttttgaccggataaaggatttcccaataactcttatacaaaaagcagagtcgggttagggaccac
 Cmr

5' agtttcaccagttttgatttaacgtggccaatatggacaacttcttcgccccgtttcacatgggcaaataattatacgaaggcgacaagggtgctga
 3' tcaaagtggtcaaaactaaatttgaccgggtatacctgttgaagaagcgggggcaaaagtggtaccggttataaatatgcggtccgctgttccacgact
 Cmr

5' tgccgctggcgattcagggttcatcatgcccgtttgtgatggcttccatgtcggcagaatgcttaataatgaaatacaacagtagctgcgatgagtgccagggcgg
 3' acggcgaccgctaagtccaagtagtacggcaaacactaccgaaggtacagccgctctacgaattacttaatgtgtcatgacgctactcaccgtcccgc
 Cmr

5' ggcgtaatttttaaggcagttattggtgcccttaaacgcctggttgcctacgcctgaataagtataaagcggatgaatggcagaaattcggatctc
 3' ccgcattaaaaaattccgtaataaccacgggaatttgccgaccacgatgcccacttattcactattatcgcctacttaccgctcttaagcctagag
 Cmr

5' gaccgcgttggggcgtggctccctgccacgcggctccgaacagaagctgatctccgaaggatctgacatgtgttaaacctcgacttaattaagtgc
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 Cmr PciI Pacl

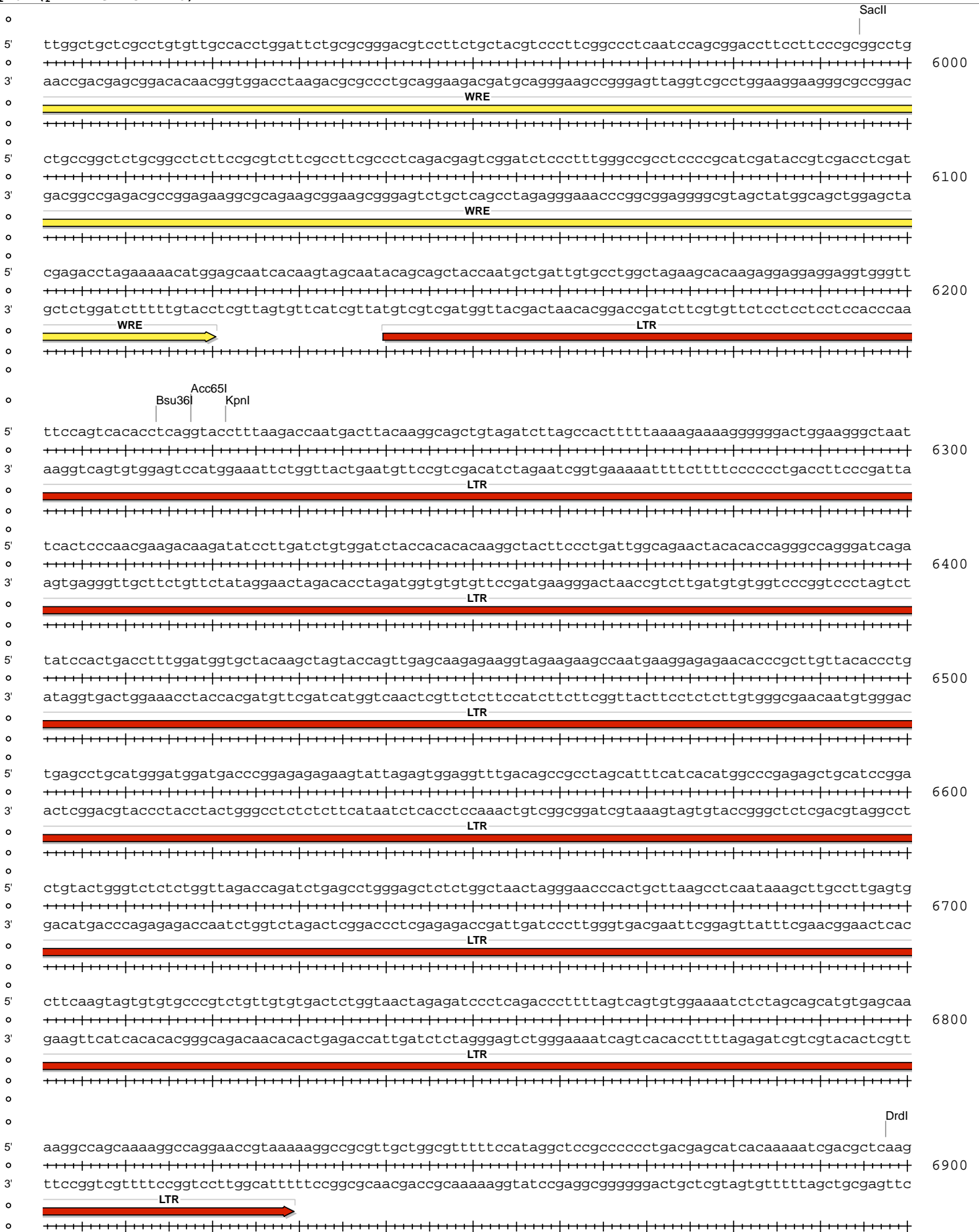
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 3' acctaagtgtttaaacttttctaactgaccataagaattgatacaacgaggaatgagatacacctatgacgacgaaattacggaaacatagtagcga
 WRE

5' tgcttcccgtatggctttcattttctcctccttgataaatcctgggtgctgctctttatgaggagtgtggcccgttgcaggcaacctggcgtggg
 3' acgaagggcataccgaaagtaaagaggaggaacatatttaggaccaacgacagagaataactcctcaacaccgggcaacagtcggttgaccgcaccac
 WRE

5' tgcactgtgtttgctgacgcaacccccactggttggggcattgccaccacctgctcagctccttccgggactttcgcttccccctccctattgccacgg
 3' acgtgacacaaacgactgcttgggggtgaccaaccccgtaacggtggtggacagtcgaggaaggccctgaaagcgaagggggagggataacggtgcc
 WRE

5' cggaaactcatcgccgctgcttgcctgcccgtgctggacaggggctcggtgttgggcaactgacaattccgtggtgtgtcggggaaatcatcgctccttcc
 3' gccttgagtagcggcgacggaacgggcgacgacctgtcccagccgcaaacccgtgactgttaaggcaccacaacagccccttagtagcaggaagg
 WRE



p201 (pPRIME-CMV-GFP-FF3)

```

5'   tcagaggtggcgaaacccgacaggactataaagataccaggcgtttcccctggaagctccctcgtgcgctctcctgttccgacacctgccgcttaccgga
o   ++++++
3'   agtctccaccgctttgggctgtcctgatatttctatggtccgcaagggggaccttcgagggagcacgcgagaggacaaggctgggacggcgaatggcct
o   ++++++
o
5'   tacctgtccgctttctccctcgggaagcgtggcgctttctcatagctcacgctgtaggtatctcagttcgggtgtaggtcgctccaagctgggct
o   ++++++
3'   atggacaggcggaaagaggaagcccttcgcaccgcgaaagagatcgagtgcgacatccatagagtcagccacatccagcaagcgaggttcgacccga
o   ++++++
o
5'   gtgtgcacgaaccccccgcttcagcccagccgctgcgcttatccggtaactatcgtcttgagtcacacccggttaagacacgacttatcgccactggcagc
o   ++++++
3'   cacacgtgcttggggggcaagtgggctggcgacgcggaataggccattgatagcagaactcaggttgggcatctctgtgctgaatagcggtgaccgtcg
o   ++++++
o
5'   agccactggtaacaggattagcagagcgaggtatgtaggcggtgctacagagttcttgaagtggggcctaactacggctacactagaagaacagattt
o   ++++++
3'   tcggtgaccattgtcctaactcgtctcgtccatacatccgccacgatgtctcaagaacttcaccaccgattgatgccgatgtgatcttctgtcataaa
o   ++++++
o
5'   ggtatctgcgctctgtggaagccagttaccttcggaaaaagagttggtagctcttgatccggcaaacaaaccacgctggtagcggtgttttttgttt
o   ++++++
3'   ccatagacgcgagacgacttcggtcaatggaagccttttctcaaccatcgagaactaggccggttggttgggtggcgaccatcgccaccaaaaaaaciaa
o   ++++++
o
5'   gcaagcagcagattacgcgcagaaaaaaggatctcaagaagatccttgatctttctacggggtctgacgctcagtggaacgaaaactcacgtaagg
o   ++++++
3'   cgttcgctgctaatgcgctcttttttctagagttcttctagaaaactagaaaagatgcccagactgcgagtcaccttgcttttgagtgcaattcc
o   ++++++
o
5'   gatttgggtcatgagattatcaaaaaggatcttcacctagatccttttaattaaaaatgaagttttaaataaatctaaagtataatgagtaaaactgg
o   ++++++
3'   ctaaaccagtagtctaatagtttttctagaagtgatctaggaaaatttaattttacttcaaaatttagttagattccatatatactcatttgaacc
o   ++++++
o
o
o
5'   tctgacagttaccaatgcttaatcagtgaggcacctatctcagcgatctgtctatctcgttcacatagttgcctgactccccgctcgtgtagataacta
o   ++++++
3'   agactgtcaatgggtacgaatagtcactccgtggatagagtcgctagacagataaagcaagtaggtatcaacggactgaggggcagcacatctattgat
o   ++++++
o
5'   cgatacgggagggcttaccatctggcccagtgctgcaatgataccgcgagacccacgctcaccggctccagatttatcagcaataaacgaccagccgg
o   ++++++
3'   gctatgccctccgaatggtagaccggggtcacgacgtactatggcgctctgggtgagtgagggcaggtctaaatagtcgttatgggtcggtcgcc
o   ++++++
o
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3'   ttcccggctcgcgtcttcaccaggacgttgaataggcggaggtaggtagataattaacaacggcccttcgatctcatcatcaagcgggtcaattatca
o   ++++++
o
o
o
5'   ttgcgcaacgcttgggtccattgctacaggcatcgtgggtgcacgctcgtcgtttggtaggcttcattcagctccggttccaacgatcaaggcgagtta
o   ++++++
3'   aacgcgctgcaacaacggtaacgatgtccgtagcaccacagtcgagcagcaaacataaccgaagtaagtcgagggccaaggggtgctagttccgctcaat
o   ++++++
o
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o   ++++++
3'   gtactaggggtacaacacgctttttcgcgaatcgaggaagcaggaggttagcaacagtcctcattcaaccggcgctcaaatagtgagtaccaataaccg
o   ++++++
o
5'   agcactgcataattctctactgtcatgccatccgtaagatgcttttctgtgactggtagtactcaaccaagtcatctgagaatagtgatgaggcga
o   ++++++
3'   tcgtgacgtattaagagaatgacagtagcgttaggcattctacgaaaagacactgaccactcatgagttgggtcagtaagactcttatcacatacggcgt
o   ++++++
o
o

```

AhdI

FspI

7000
7100
7200
7300
7400
7500
7600
7700
7800
7900
8000
8100
8200

