

Absent Sites	0	AarI,AbstI,AlfI,AlfI',Ascl,AvrII,BaeI,BaeI',BamHI,BarI,BarI',BclI,BmgBI,BsiWI,BsrGI,BstBI,BstEII,BstXI,BstZ17I,FspAI,HpaI,MauBI,MreI,PmlI,PsrI,PsrI',SbfI,SfiI,SgrAI,Smal,SphI,SrfI,Swal,TstI,TstI',XcmI,XmaI
Acc65I	1	6757
AfeI	1	3195
AgeI	1	3199
AhdI	1	8222
AjuI	1	3927
AjuI'	1	3895
AleI	1	1920
Alol	1	4642
Alol'	1	4610
Apal	1	2572
AsiSI	1	3578
BbeI	1	984
BcgI	1	8727
BcgI'	1	8761
BlpI	1	4676
BmtI	1	3194
BsaBI	1	4419
BspMI	1	3527
BssHII	1	1054
Bsu36I	1	6753
EcoNI	1	1513
FseI	1	1491
FspI	1	8444
KasI	1	980
KpnI	1	6761
MscI	1	5568
NarI	1	981
NheI	1	3190
NotI	1	4241
NsiI	1	2598
PacI	1	5933
PciI	1	5909
PfoI	1	6304
PshAI	1	3241
PsiI	1	4275
PspOMI	1	2568
PspXI	1	4700
RsrII	1	3622
SanDI	1	2277
SexAI	1	4299
SfoI	1	982
SgrDI	1	2
SpeI	1	253
StuI	1	4371
XbaI	1	2576
XhoI	1	4700

p201 (pPRIME-CMV-GFP-FF3)

SgrDI

5' gtcgacggatcgggagatctcccgatcccctatggtgcactctcagtacaatctgctctgatgccgcatagttaagccagtatctgctccctgcttgtgt
 100
 3' cagctgcctagccctctagagggctaggggataccacgtgagagtcaggttagacgagactacggcgtatcaattcgggtcatagacgagggacgaacaca
 +

5' gttggaggtcgctgagtagtgcgcgagcaaaatttaagctacaacaaggcaaggcttgaccgacaattgcatgaagaatctgcttaggggttaggcgtttt
 200
 3' caacctccagcgactcatcacgcgctcgttttaattcgatggtgttccgttccgaactggctgtaacgtacttcttagacgaatccaatccgcaaaa
 +

Spel

5' gcgctgcttcgogatgtacgggccagatatacgcgcttgacattgattattgactagttattaatagtaatacaattacgggggtcattagttcatagcccat
 300
 3' cgcgacgaagcgctacatgcccggctctatatgcgcaactgtaactaataactgatcaataattatcattagttaatgcccagtaatacaagtatcgggta
 +

5' atatggagttccgcttacataaacttacggtaaatggcccgcctggctgaccgcccaacgacccccgccattgacgtcaataatgacgtatgttcccat
 400
 3' tatacctcaaggcgcaatgtattgaatgccatttacggggcggaccgactggcgggtgctggggcgggtaactgcagttattactgcatacaagggtta
 +

5' agtaacgccaatagggactttccattgacgtcaatgggtggagtatttacggtaactgcccaacttggcagtacatcaagtgtatcatatgccaaagtacg
 500
 3' tcatgcggttatccctgaaaggtaactgcagttaccacctcataaatgccattgacgggtgaaccgtcatgtagttcacatagtatacggttcatgc
 +

5' cccctattgacgtcaatgacggtaaatggcccgcctggcattatgccagtacatgacctatgggactttcctacttggcagtacatctacgtattag
 600
 3' gggggataactgcagttactgcccattaccggggcggaccgtaatacgggtcatgtactggaataccctgaaaggatgaaccgtcatgtagatgcataatc
 +

5' tcatcgctattaccatgggtgatgcgggttttggcagtacatcaatgggcgtggatagcgggttgactcacggggatttccaagtctccacccattgacgt
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 3' agtagcgataatggtaccactacgcaaaaaccgtcatgtagttaccgcacctatcgccaaactgagtgcccctaaagggttcagaggtgggtaactgca
 +

5' caatgggagttgttttggcaccaaaatcaacgggactttccaaaatgctgtaacaactccgccccattgacgcaaatggcggttaggcgtgtacgggtg
 800
 3' gttaccctcaaacaaaaccgtggttttagttgcctgaaagggttttacagcatggttgaggcgggtaactgcgtttaccggccatccgcacatgccacc
 +

5' gaggtctatagaccagatctgagcctgggagctctctggctaactaggaaccactgcttaagcctcaataaagcttgcttgagtgcttcaagtagtg
 900
 3' ctccagatatctggctagactcggaccctcgagagaccgattgatccctgggtgacgaattcggagttatttgaacggaactcacgaagttcatcac
 +

LTR

KasI
 NarI
 SfoI
 BbeI

5' tgtgccgctctgttgtgtgactctggttaactagagatccctcagacccttttagtcagtggtgaaaaatctctagcagtgggcgccgaacagggacttgaa
 1000
 3' acacgggcagacaacacactgagaccattgatctctagggagctctgggaaaaatcagtcacaccttttagagatcgtcaccgcgggcttgcctcctgaactt
 +

LTR

BssHII

5' agcgaagggaaccagaggagctctctcgacgcaggactcggcttgcctgaagcgcgcacggcaagaggcgaggggcgactggtgagtagcgcacaaa
 1100
 3' tcgctttcccttggctcctcagagagactgagctcctgagccgaacgacttcgcgcgctgcccgttctccgctccccgcccgtgaccactcatgcggtttt
 +

LTR

p201 (pPRIME-CMV-GFP-FF3)

5' attttgactagcggaggctagaaggagagagatgggtgcgagagcgtcagtattaagcgggggagaattagatcgcgatgggaaaaattcgggtaaggc
 o ++++++
 3' taaaactgatcgctccgatcttctctctctaccacgctctcgcagtcataattcgccccctcttaattctagcgtacccttttttaagccaattccg
 o
 o

LTR

1200

5' caggggaaagaaaaatataataaacatatagtatgggcaagcagggagctagaacgattcgcagttaatcctggcctgttagaaacatcagaaggct
 o ++++++
 3' gtccccctttctttttatattttgtatatacataccggttcgtccctcgatcttgtaagcgtcaattaggaccggacaatctttgtagtcttccga
 o
 o

LTR

1300

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 o ++++++
 3' catctgtttatgacctgtcgatgttggtaggaagtctgtcctagtctcttgaatctagtaatatattatgtcatcgttgggagataacacacgtagt
 o
 o

LTR

1400

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 o ++++++
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 o
 o

LTR

Fsel

1500

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 o ++++++
 3' gaagtctggacctcctcctctataactcctgtaacctctcacttaatatattatattcatcatttttaacttggtaatcctcatcgtgggtggttc
 o
 o

EcoNI

LTR

HIV RRE

1600

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 3' cgtttctctctcaccacgtctctcttttctcgtcacccttatcctcgaacaaggaaccaagaaccctcgtcgtcctcgtgatacccgctcgca
 o
 o

HIV RRE

1700

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 o ++++++
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 o
 o

HIV RRE

1800

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 o ++++++
 3' tgagtgtcagaccccgtagttcgtcgaggtccgttcttaggaccgacacctttctatggatttcttagtctgagggaccctaaaccccaacgagacct
 o
 o

HIV RRE

1900

5' aaactcatttgcaccactgctgtgccttggaaatgctagttggagtaataatctctggaacagatttggaaatcacacgacctggatggagtgggacagag
 o ++++++
 3' tttgagtaaacggtgacgacacggaaccttacgatcaacctcattattagagacctgtctaaaccttagtgtgctggacctacctcacctgtctc
 o
 o

Alel

HIV RRE

2000

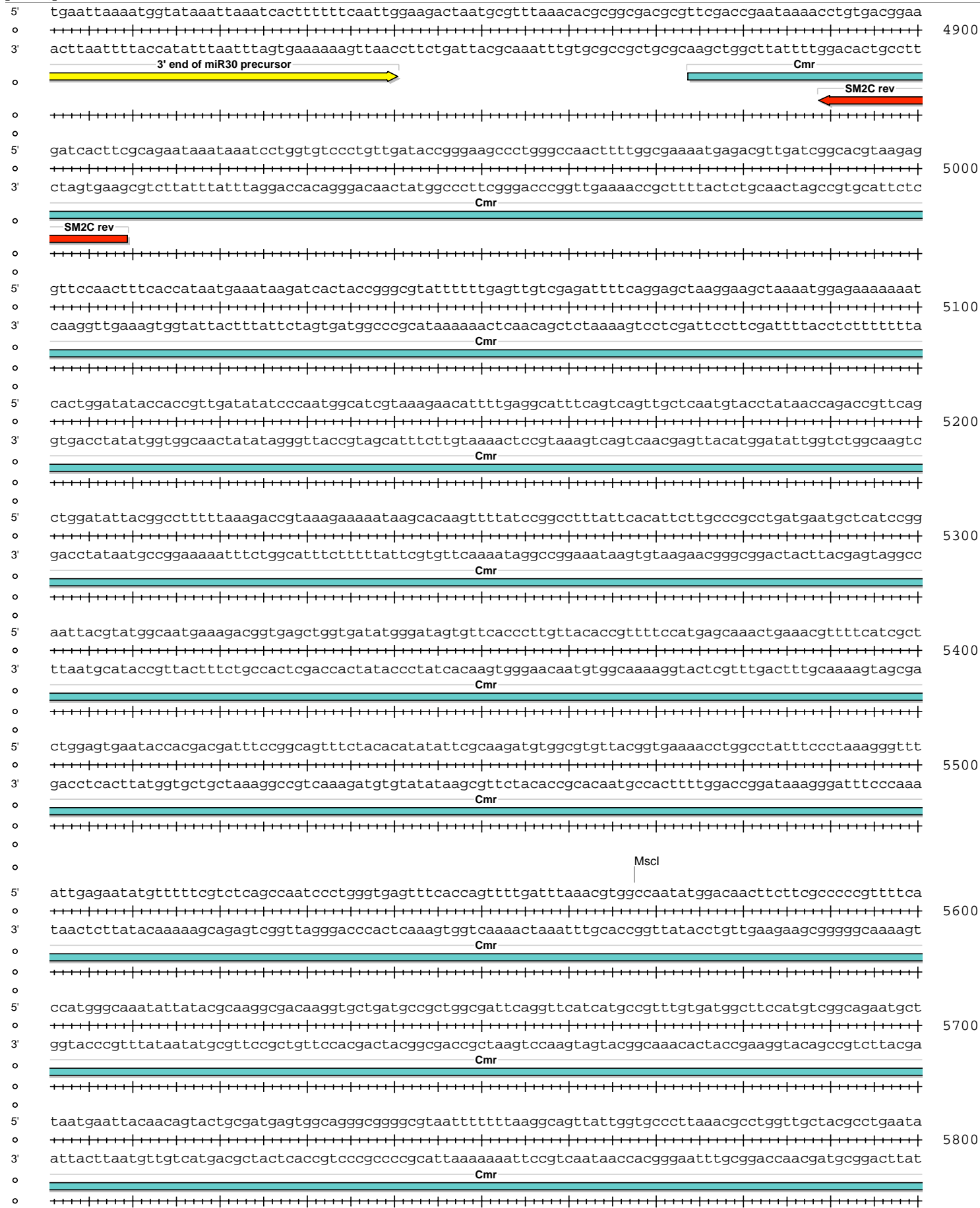
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 o ++++++
 3' ttaattgttaatgtgttcgaattatgtgaggaattaacttcttagcgttttggctgctcttcttacttgttcttaataaccttaacttatttaccg
 o
 o

HIV RRE

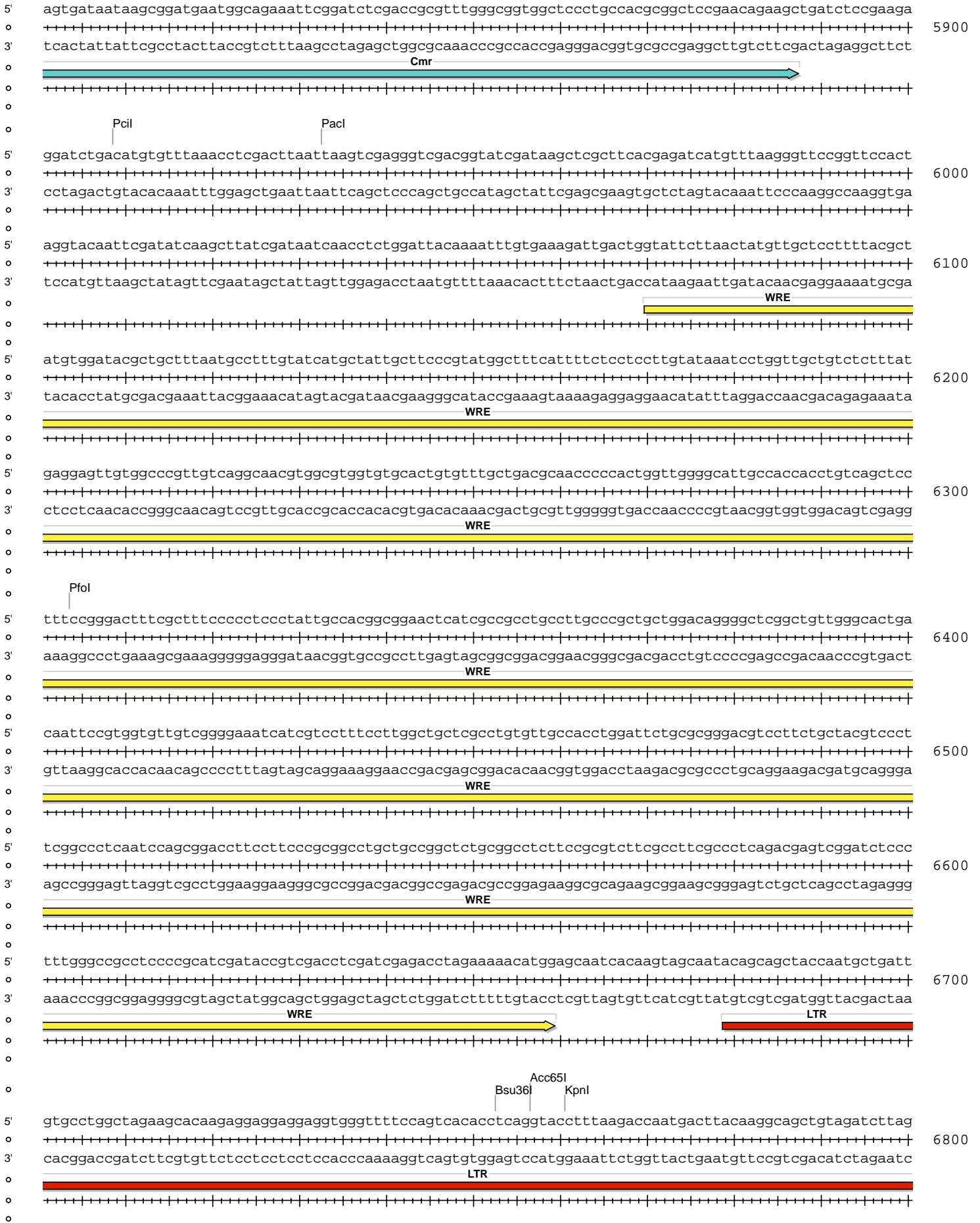
2100



p201 (pPRIME-CMV-GFP-FF3)



p201 (pPRIME-CMV-GFP-FF3)



p201 (pPRIME-CMV-GFP-FF3)

5' ccacttttttaaagaaaaggggggactggaagggttaattcactcccaacgaagacaagatatccttgatctgtggatctaccacacacaaggctacttc
o ++++++
3' ggtgaaaaatcttctttccccctgaccttcccgattaaagtgaggggtgcttctgttctataggaactagacacctagatggtgtgtgttccgatgaag
o LTR
o ++++++
o ++++++

5' cctgatggcagaactacacaccagggccagggatcagatatccactgaccttggatgggtgctacaagctagtaccagttgagcaagagaaggtagaag
o ++++++
3' ggactaacctgctttagatgtgtgggtcccggtccctagctctataggtgactggaacctaccacgatgttcgatcatgggtcaactcgttctcttccatcttc
o LTR
o ++++++
o ++++++

5' aagccaatgaaggagagaacacccgcttgttacaccctgtgagcctgcatgggatggatgaccggagagagaagtattagagtggaggtttgacagccg
o ++++++
3' ttcggttacttctctcttctgtggggaacaatgtgggacactcggacgtacctactgggctctctctctcataatctcacctccaaactgtcggc
o LTR
o ++++++
o ++++++

5' cctagcatttcatcacatggcccagagctgcatccggactgtactgggtctctctggttagaccagatctgagcctgggagctctctggctaactaggg
o ++++++
3' ggatcgtaaagttagtaccgggctctcgacgtaggcctgacatgaccagagagaccaatctggtctagactcggaccctcgagagaccgattgatccc
o LTR
o ++++++
o ++++++

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o ++++++
3' ttgggtgacgaattcggagttatttcgaacggaactcacgaagttcatcacacacggcagacaacacactgagaccattgatctctagggagtctggga
o LTR
o ++++++
o ++++++

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o LTR
o ++++++
o ++++++

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o ++++++
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o ++++++
o ++++++

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o ++++++
o ++++++

5' atctcagttcgggtgtaggtcgttcgctccaagctgggctgtgtgcacgaacccccgttcagcccagaccgctgctccttatccggttaactatcgtcttga
o ++++++
3' tagagtcaagccatccagcaagcgaggttcgacctgacacacgtgcttgggggcaagtccggctggcgacgcaataggccattgatagcagaact
o ++++++
o ++++++

5' gtccaaccggtaagacacgacttatcgccactggcagcagccactggtaacaggattagcagagcaggtatgtaggcggtgctacagagttcttgaag
o ++++++
3' cagggtgggaccattctgtgctgaatagcgggtgaccgctcgtcggtgaccattgtcctaactcgtctcgtccatacatccgccacgatgtctcaagaacttc
o ++++++
o ++++++

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o ++++++
3' accaccggatgatgcccgatgtgatcttctgtcataaacatagacgcgagacgacttcggtcaatggaagccttttctcaacctcgagaactaggg
o ++++++
o ++++++

5' gcaaaccaaccacgctggtagcgggtggttttttggttgcaagcagcagattacgcgcagaaaaaaggatctcaagaagatcctttgatcttttctac
o ++++++
3' cgtttggttggggaccatcgccacaaaaaaacaaacggttcgctcgtcctaataatgcgctcttttttccctagagttcttctagaaactagaaaagatg
o ++++++
o ++++++

p201 (pPRIME-CMV-GFP-FF3)

```

5'   ggggtctgacgctcagtggaacgaaaactcacgttaagggattttggatcatgagattatcaaaaaggatcttcacctagatccttttaaatataaaatga
o   ++++++
3'   cccagactgcgagtcaccttgcttttgagtgcaattccctaaaaccagtactctaatagtttttcctagaagtggatctagggaaaatttaattttact
o   ++++++
o
5'   agttttaaatcaatctaaagtataatagagtaaaacttggtctgacagttaccaatgcttaatcagtgaggcacctatctcagcgatctgtctatctgtt
o   ++++++
3'   tcaaaaatttagtttagatttcataatactcatttgaaccagactgtcaatggttacgaattagtcactcctggatagagtcgctagacagataaaagcaa
o   ++++++
o
o
o
                Ahdl
                |
5'   catccatagttgcctgactccccgctgtagataactacgatacgggagggcttaccatctggcccagtgctgcaatgataccgagagaccacgctc
o   ++++++
3'   gtaggtatcaacggactgaggggcagcacatctattgatgctatgccctcccgaatggtagaccgggtcacgacgcttactatggcgtctctgggtgcgag
o   ++++++
o
5'   accggtccagatctatcagcaataaacagccagccggaagggcggagcgcagaagtggctcctgcaactttatccgcctccatccagctctattaattgt
o   ++++++
3'   tggccgaggctcaaatagtcgtattttggcggcctcccgctcgcgtcttcaccaggacgctgaaataggcggaggtaggtcagataaataaca
o   ++++++
o
o
o
                                Fspl
                                |
5'   tgccggaagctagagtaagtagttcgcagttaatagttgcgcaacgcttgggtgcccattgtacaggcatcgtgggtgcagctcgtcgtttgggatgg
o   ++++++
3'   acggccttcgatctcattcatcaagcggcaatatacaacgcgctgcaacaacggtaacgatgtccgtagcaccacagtcgagcagcaaacataacc
o   ++++++
o
5'   cttcattcagctccggttcccaacgatcaaggcagttacatgatccccatggtgtgcaaaaagcggtagctccttcggctccatccgatcgtttgtcag
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o   ++++++
o
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o   ++++++
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o   ++++++
o
o
o
                Bcgl               Bcgl'
                |                   |
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o   ++++++
3'   atgagttggttcagtaagactcttatcacatacgcgctgggtcaacgagaacgggcccagttatgccctattatggcggggtgatcgtcttgaat
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o   ++++++
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o   ++++++
o
5'   atactcactactcttccttttcaatattattgaagcatttatcagggttattgtctcatgagcggatataatattgaatgtatttagaaaaataaaca
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o   ++++++
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3'   atccccaggcgcggtgtaaagggccttttcacggtgactg
o   ++++++
o
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o

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