

Absent Sites	0	AarI,AbsI,AjuI,AjuI',AlfI,AlfI',AscI,AsiSI,AvrII,BaeI,BaeI',BamHI,BarI,BarI',BclI,BmgBI,BsiWI,BspMI,BstBI,BstEII,BstXI,BstZ17I,FspAI,HpaI,MauBI,MreI,PmlI,PshAI,PspXI,PsrI,PsrI',RsrII,SbfI,SfiI,SgrAI,Smal,SphI,SrfI,Swal,Tth111I,XcmI,XmaI
Acc65I	1	6540
AfeI	1	3195
AgeI	1	3199
AhdI	1	8005
Alol	1	4333
Alol'	1	4301
ApaI	1	2572
BbeI	1	984
BblI	1	4367
BmtI	1	3194
BsaBI	1	4110
BsrGI	1	3921
BssHII	1	1054
Bsu36I	1	6536
DrdI	1	7220
EcoNI	1	1513
FseI	1	1491
FspI	1	8227
KasI	1	980
KpnI	1	6544
MscI	1	5351
NarI	1	981
NheI	1	3190
NotI	1	3932
NsiI	1	2598
PacI	1	5716
PciI	1	5692
PsiI	1	3966
PspOMI	1	2568
PstI	1	2380
SacII	1	6317
SanDI	1	2277
SexAI	1	3990
SfoI	1	982
SgrDI	1	2
SpeI	1	253
StuI	1	4062
TstI	1	4463
TstI'	1	4431
XbaI	1	2576
XhoI	1	4391

p201 (pPRIME-CMV-GFP-FF3)

o SgrDI

5' gtcgacggatcgggagatctcccgatcccctatggtgcactctcagtacaatctgctctgatgccgcatagttaagccagtatctgctccctgcttgtgt
o ++++++ 100

3' cagctgcctagccctctagagggctaggggataccacgtgagagtcaggttagacgagactacggcgatcaattcgggtcatagacgagggacgaacaca
o ++++++

o

5' gttggaggtcgctgagtagtgcgcgagcaaaathtaagctacaacaaggcaaggcttgaccgacaattgcatgaagaatctgcttaggggttaggcgtttt
o ++++++ 200

3' caacctccagcgactcatcacgcgctcgttttaattcgatggtgttccgttccgaactggctgtaacgtacttcttagacgaatccaatccgcaaaa
o ++++++

o

o Spel

5' gcgctgcttcgogatgtacgggcccagatatacgcgcttgacattgattattgactagttattaatagtaatacaattacgggggtcattagttcatagcccat
o ++++++ 300

3' cgcgacgaagcgctacatgcccggctctatatgcgcaactgtaactaataactgatcaataattatcattagttaatgcccagtaatacaagtatcgggta
o ++++++

o

5' atatggagttccgcttacataaacttacggtaaatggcccgcctggctgaccgcccacgacccccgccattgacgtcaataatgacgtatgttcccat
o ++++++ 400

3' tatacctcaaggcgcaatgtattgaatgccatttacggggcggaccgactggcgggtgctggggcgggtaactgcagttattactgcatacaagggtta
o ++++++

o

5' agtaacgccaatagggactttccattgacgtcaatgggtggagatattacggtaaaactgcccaacttggcagtacatcaagtgtatcatatgccaaagtacg
o ++++++ 500

3' tcatgcggttatccctgaaaggtaactgcagttaccacctcataaatgccattgacgggtgaaccgtcatgtagttcacatagtatacggttcatgc
o ++++++

o

5' cccctattgacgtcaatgacggtaaatggcccgcctggcattatgccagtacatgacctatgggactttcctacttggcagtacatctacgtattag
o ++++++ 600

3' gggggataactgcagttactgccatttaccgggcccggaccgtaatacgggtcatgtactggaataccctgaaaggatgaaccgtcatgtagatgcataatc
o ++++++

o

5' tcatcgctattaccatgggtgatgcgggttttggcagtacatcaatgggcgtggatagcgggttgactcacggggatttccaagtctccacccattgacgt
o ++++++ 700

3' agtagcgataatggtaccactacgcaaaaaccgtcatgtagttaccgcacctatcgccaaactgagtgcccctaaagggttcagaggtggggtaactgca
o ++++++

o

5' caatgggagttgttttggcaccaaaatcaacgggactttccaaaatgctgtaacaactccgccccattgacgcaaatggcggttaggcgtgtacgggtg
o ++++++ 800

3' gttaccctcaaacaaaaccgtggttttagttgcctgaaagggttttacagcatggttgaggcgggtaactgcgtttaccggccatccgcacatgccacc
o ++++++

o

5' gaggtctatagaccagatctgagcctgggagctctctggctaactaggaaccactgcttaagcctcaataaagcttgcttgagtgctcaagtagtg
o ++++++ 900

3' ctccagatatctggctagactcggaccctcgagagaccgattgatccctgggtgacgaattcggagttatttgaacggaactcacgaagttcatcac
o ++++++

o LTR

o ++++++

o

o KasI
o NarI
o SfoI
o BbeI

5' tgtgccgctctgttgtgtgactctggttaactagagatccctcagacccttttagtcagtggtgaaaaatctctagcagtgggcgccgaacagggacttgaa
o ++++++ 1000

3' acacgggcagacaacacactgagaccattgatctctagggagctctgggaaaaatcagtcacaccttttagagatcgtcaccgcgggcttgcctcctgaactt
o ++++++

o LTR

o ++++++

o

o BssHII

5' agcgaagggaaccagaggagctctctcgacgcaggactcggcttgcctgaagcgcgcacggcaagaggcgaggggcgactggtagtacgcaaaa
o ++++++ 1100

3' tcgctttcccttggctcctcagagagactgcgctcctgagccgaacgacttcgcgctgcccgttctccgctccccgcccgtgaccactcatgcggtttt
o ++++++

o LTR

o ++++++

o

p201 (pPRIME-CMV-GFP-FF3)

5' attttgactagcggaggctagaaggagagagatgggtgcgagagcgtcagtattaagcgggggagaattagatcgcgatgggaaaaattcgggtaaggc
 1200
 3' taaaactgatcgctccgatcttctctctctaccacgctctcgcagtcataattcgccccctcttaattctagcgtacccttttttaagccaattccg
 LTR

5' caggggaaagaaaaatataataaacatatagtatgggcaagcaggagctagaacgattcgcagttaatcctggcctgtagaaacatcagaaggct
 1300
 3' gtcccccttctttttatattttgtatatcataccggttcgctcctcgatcttgtaagcgtcaattaggaccggacaatctttagtagtctccga
 LTR

5' gtagacaaatactgggacagctacaaccatcccttcagacaggatcagaagaacttagatcattatataatacagtagcaaccctctattgtgtgcatca
 1400
 3' catctgtttatgacctgtcgatggttaggaagtctgtcctagctctcttgaatctagtaatatattatgtcatcgtgggagataacacacgtagt
 LTR

5' aaggatagagataaaaagacaccaaggaagcttttagacaagatagaggaagagcaaaacaaaagtaagaccaccgcacagcaagcggccggccgctgat
 1500
 3' ttctatctctatcttctgtggttccttcgaaatctgttctatctccttctcgtttcttctcattctggtggcgtgctcgttcgccggccggccgacta
 LTR Fsel

5' cttcagacctggaggaggagatagaggacaattggagaagtgaattatataataaaagtagtaaaaattgaaccattaggagtagcaccaccaag
 1600
 3' gaagtctggacctcctcctctataactcctgtaacctctcacttaatatattatattcatcatttttaacttggtaatcctcatcgtgggtggttc
 LTR HIV RRE EcoNI

5' gcaagagaagagtggcagagagaaaaagagcagtggaataggagcttcttcttgggttcttgggagcagcaggaagcactatgggagcagcgt
 1700
 3' cgttctctctcaccacgctctctcttttctcgtaacccttatcctcgaacaaggaaccaagaacctcgtcgtcctcgtgatacccgctcgca
 HIV RRE

5' caatgacgctgacggtacaggccagacaattatgtctggtatagtgacagcagacaatttgctgagggctattgaggcgcaacagcatctgttgca
 1800
 3' gttactgagactgccatgtccggtctgtaataacagaccatcacgctcgtcgtcttggtaaacgactcccgataactccgcgtgtcgtagacaacgt
 HIV RRE

5' actcacagctctggggcatcaagcagctccaggcaagaatcctggctgtgaaagatacctaaaggatcaacagctcctggggatttggggtgctctgga
 1900
 3' tgagtgtcagacccttagtctcgtcgaggtccgttcttaggaccgacacctttctatggatttcttagtgtcgaggaccctaaaccccaacgagacct
 HIV RRE

5' aaactcatttgaccactgctgtgccttggaaatgctagtgtgagtaataaatctctggaacagatttggaaatcacacgacctggatggagtgggacagag
 2000
 3' tttagtaaacggtgacgacacggaaccttacgatcaacctcattatttagagaccttctctaaaccttagtgtgctggacctacctcacctgtctc
 HIV RRE

5' aaattaacaattacacaagcttaatacactccttaattgaagaatcgcaaacaccagcaagaaaagaatgaacaagaattattggaattagataaatgggc
 2100
 3' ttaattgttaatgtgttcgaattatgtgaggaattaacttcttagcgttttggctcttcttcttacttgttcttaataaccttaacttattaccgg
 HIV RRE

p201 (pPRIME-CMV-GFP-FF3)

5' aagtttggtgaattggtttaacataacaattggctgtggtatataaaattattcataatgatagtaggagcttggtaggtttaagaatagtttttggct
 2200
 3' ttcaaacaccttaaccaaatgtattgtttaaccgacaccatataatttaataagtagtactatcatcctccgaaccatccaaattcttatcaaaaacga
 HIV RRE

5' gtactttctatagtgaaatagtagtaggcaggatattcaccattatcgtttcagaccacctccaaccccgaggggacccgacagggcccgaaggaatag
 2300
 3' catgaaagatataccttatctcaatccgtccctataagtggtaaatagcaaaagctgggtggagggttggggctcccctgggctgtccgggcttctctatc
 HIV RRE

5' aagaagaaggtggagagagagacagagacagatccattcgattagtgaaaggatcggcactcgtgcgccaattctgcagacaaatggcagtagtcatcc
 2400
 3' ttcttctccaacctctctctgtctctgtctaggaagctaataccttgcctagccgtgacgcacgcggttaagacgtctgtttaccgtcataagtagg
 HIV RRE

5' acaattttaaagaaaagggggattgggggtacagtgcaggggaaagaatagtagacataatagcaacagacatacaaaactaagaattacaaaaaca
 2500
 3' tgttaaattttctttccccctaacccccatgtcacgtccctttcttatcatctgtattatcgttctgtatgtttgatttcttaagttttgt
 HIV RRE

5' aattacaaaaattcaaaatcttgggtttattacagggacagcagagatccagtttggtagtagaccgggcccgcctctagacgtattaccgcatgcat
 2600
 3' ttaatgttttaagttttaaagcccaataatgtccctgtcgtctctaggtcaaaccaatcatggcccggcgagatctgcataatggcggtagcgaat
 CMV
 Apal PspOMI XbaI NsiI

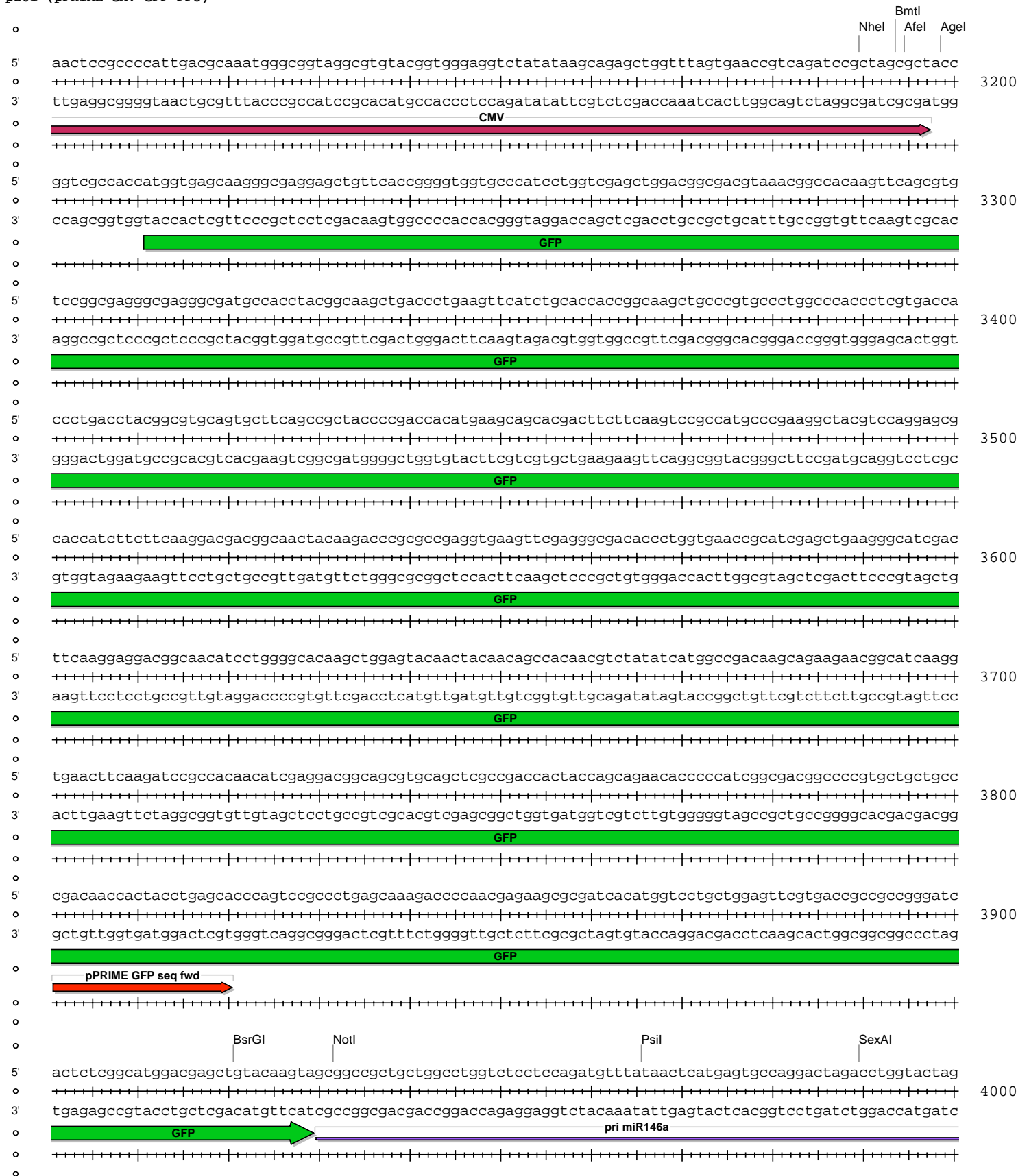
5' gttattaatagtaatacaattacggggtcattagttcatagccatataatggagttccgcgttacataacttacggtaaatggcccgcctggctgaccgcc
 2700
 3' caataattatcattagtaaatgccccagtaatacagtagcgggtatatacctcaaggcgaatgtattgaatgcatattaccgggaggaccgactggcgg
 CMV

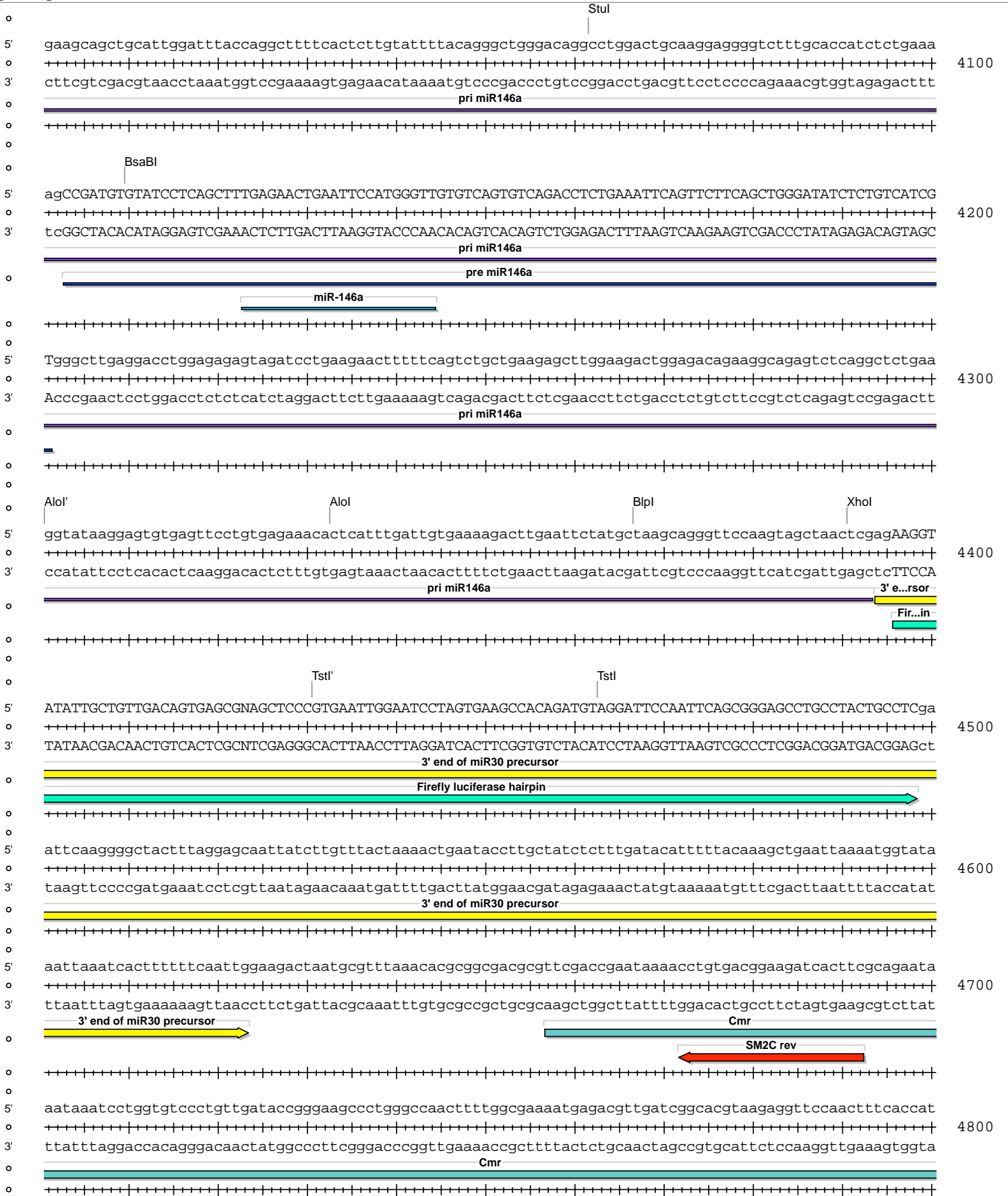
5' caacgacccccgccattgacgtcaataatgacgtatgttccatagtaacgcaatagggactttccattgacgtcaatgggtggagatattacggtaa
 2800
 3' gttgctggggcgggtaactgcagttattactgcatacaagggtatcattgcgggtatccctgaaaggtaactgcagttaccacctcataaatgccatt
 CMV

5' actgccacttggcagtagcatcaagtgtatcatatgccaagtacgcccctattgacgtcaatgacggtaaatggcccgcctggcattatgccagtaga
 2900
 3' tgacgggtgaaccgtcatgtagttcacatagtagtaccggtcatgcggggataactgcagttactgccatttaccgggaggaccgtaatacgggtcatgt
 CMV

5' tgaccttatgggactttcacttggcagtagatctacgtattagtcacgtcattaccatggtagcgggtttggcagtagcatcaatgggctgggata
 3000
 3' actggaataccctgaaaggatgaaccgtcatgtagatgcataatcagtagcgataatggtagcactacgcaaaaccgtcatgtagttaccgacacctat
 CMV

5' gcggtttgactcacggggatttccaagtctccacccattgacgtcaatgggagtttggtttggcaccaaaatcaacgggactttccaaaatgtcgtaac
 3100
 3' cgccaaactgagtgcccctaaagggtcagaggtgggtaactgcagttaccctcaacaaaaccgtggttttagttgcctgaaagggtttacagcattg
 CMV





p201 (pPRIME-CMV-GFP-FF3)

5' aatgaaataagatcactaccggggtatTTTTTgagttgtcgagatTTTCaggagctaaggaagctaaaatggagaaaaaatcactggatataccaccg
 4900
 3' ttactttattctagtgatggccgcataaaaaactcaacagctctaaaagtctctcgatTCCTTCGATTTTACCTCTTTTTTAGTGACCTATATGGTGGC
 Cmr

5' ttgataatcccaatggcatcgtaaagaacattttgaggcatttcagtcagttgctcaatgtacctataaccagaccgttcagctggatattacggcctt
 5000
 3' aactatatagggttaccgtagcatttcttgtaaaactccgtaaagtcagtcacagagttacatggatattggctctggcaagtgcacctataatgccggaa
 Cmr

5' tttaaagaccgtaaagaaaaataagcacaagttttatccggcctttattcacattcttgcccgcctgatgaatgctcatccggaattacgtatggcaatg
 5100
 3' aaatttctggcatttctttttattcgtgttcaaaatagccggaaataagtgtaagaacgggaggactacttacgagtaggccttaatgcataccggtac
 Cmr

5' aaagacggtgagctggatgggatagtggtcaccctgttacaccgttttccatgagcaaaactgaaacgttttcatcgctctggagtgaataccaccg
 5200
 3' tttctgccactcgaccactataccctatcacaagtggaacaatgtggcaaaaggtactcgtttgactttgcaaaagtagcgagacctcattatgggtgc
 Cmr

5' acgatttccggcagtttctacacatatactcgcaagatgtggcgtgttacggtgaaaacctggcctatttcctaaagggtttattgagaatatgtttt
 5300
 3' tgctaaaggccgtcaagatgtgtatataagcgttctacaccgcacaatgcccacttttgaccggataaagggtttcccaaataactctatacaaaaa
 Cmr

5' cgtctcagccaatccctgggtgagtttaccagttttgatTTAAACGTGGCCAATATGGACAACCTCTTCGCCCCGTTTTCCCATGGGCAAATATTAT
 5400
 3' gcagagtcggttagggaccactcaaagtggcTAAACTAAATTTGCACCGGTTATACCTGTTGAAGAAGCGGGGCAAAGTGGTACCCGTTTATAATA
 MscI
 Cmr

5' acgcaaggcgacaagtgctgatgccgctggcgattcaggttcatcatgccgtttgtgatggcttccatgtcggcagaatgcttaatgaattacaacagt
 5500
 3' tgcttccgctgttccacgactacggcgaccgctaagtccaagtagtacggcaaacactaccgaaggtacagccgtcttacgaattacttaagtgttca
 Cmr

5' actgcgatgagtgagggcggggcgtaatTTTTTAAAGCAGTTATTGGTGCCTTAAACGCCTGGTGTCTACGCCTGAATAAGTGATAATAAGCGGAT
 5600
 3' tgacgctactcaccgtcccgcgccgcattaaaaaattccgctcaataaccacgggaatttgccggaccaacgatgcggactatttactattatcgccta
 Cmr

5' gaatggcagaaattcggatctcgaccgctttggcggtggctccctgccacgcggtccgaacagaagctgatctccgaagaggatctgacatgtgttt
 5700
 3' cttaccgctcttaagcctagagctggcgcaaacccgccaccgagggaagggtgcgcccagggtctgtctcgcactagaggctctcctagactgtacacaaa
 Cmr
 PciI

5' aaacctcgacttaattaaagtcgagggtcgacgggtatcgataagctcgcttcacgagatcatgtttaagggttccggttccactaggtacaattcgatatac
 5800
 3' ttggagctgaattaattcagctcccagctgccatagctattcagagcgaagtgtctagtagcaaatcccaaggccaaggtgatccatgttaagctatag
 Pacl

p201 (pPRIME-CMV-GFP-FF3)

