

Absent Sites	0	AarI,Abst,Ajul,Ajul',AlfI,AlfI',Alol,Alol',Ascl,AsiSI,AvrII,BaeI,BaeI',BamHI,BarI,BarI',BmgBI,BsaBI,BsiWI,BspMI,BstBI,BstEII,BstXI,BstZ17I,FspAI,HpaI,MauBI,MreI,PmlI,Psil,PspXI,PsrI,PsrI',RsrII,SbfI,SexAI,SfiI,SgrAI,SphI,SrfI,StuI,Swal,Tth111I,XcmI,XhoI
Acc65I	1	6781 (9165)
AfeI	1	3195 (9165)
AgeI	1	3199 (9165)
AhdI	1	8246 (9165)
BbeI	1	984 (9165)
BbvCI	1	1767 (9165)
BclI	1	3972 (9165)
BlpI	1	4262 (9165)
BmtI	1	3194 (9165)
BssHII	1	1054 (9165)
DrdI	1	7461 (9165)
EcoNI	1	1513 (9165)
EcoRI	1	4741 (9165)
FseI	1	1491 (9165)
FspI	1	8468 (9165)
KasI	1	980 (9165)
KpnI	1	6785 (9165)
NarI	1	981 (9165)
NheI	1	3190 (9165)
NotI	1	3931 (9165)
NsiI	1	2598 (9165)
PacI	1	5957 (9165)
PciI	1	5933 (9165)
PshAI	1	4564 (9165)
SapI	1	1443 (9165)
SfoI	1	982 (9165)
SgrDI	1	2 (9165)
SmaI	1	4207 (9165)
SpeI	1	253 (9165)
TstI	1	4022 (9165)
TstI'	1	3990 (9165)
XbaI	1	2576 (9165)
XmaI	1	4205 (9165)

p201 (pPRIME-CMV-GFP-FF3)

o SgrDI

5' gtcgacggatcgggagatctcccgatcccctatggtgcactctcagtacaatctgctctgatgccgcatagttaagccagtatctgctccctgcttgtgt
o ++++++ 100
3' cagctgcctagccctctagagggctaggggataccacgtgagagtcattgtagacgagactacggcgatcaattcgggtcatagacgagggacgaacaca
o ++++++

o

5' gttggaggtcgctgagtagtgcgcgagcaaaatctaagctacaacaaggcaaggcttgaccgacaattgcatgaagaatctgcttaggggttaggcgttt
o ++++++ 200
3' caacctccagcgactcatcacgcgctcgtttaaatcagatggttccgttccgaactggctgtaacgtacttcttagacgaatccaatccgcaaaa
o ++++++

o

o Spel

5' gcgctgcttcgogatgtacgggcccagatatacgcgcttgacattgattattgactagttattaatagtaatacaattacgggggtcattagttcatagcccat
o ++++++ 300
3' cgcgacgaagcgctacatgcccggctctatatgcgcaactgtaactaataactgatcaataattatcattagttaatgcccagtaatacaagatcgggta
o ++++++

o

5' atatggagttccgcttacataaacttacggtaaatggcccgcctggctgaccgcccacgacccccgccattgacgtcaataatgacgtatgttcccat
o ++++++ 400
3' tatacctcaaggcgcaatgtattgaatgccatttacggggcggaccgactggcgggtgctggggcgggtaactgcagttattactgcatacaagggt
o ++++++

o

5' agtaacgccaatagggactttccattgacgtcaatgggtggagatattacggtaaaactgcccaacttggcagtacatcaagtgtatcatatgccaaagtacg
o ++++++ 500
3' tcatgcggttatccctgaaaggtaactgcagttaccacctcataaatgccattgacgggtgaaccgtcatgtagttcacatagatagcgttcatgc
o ++++++

o

5' cccctattgacgtcaatgacggtaaatggcccgcctggcattatgccagtagacattatgggactttcctacttggcagtagacatctacgtattag
o ++++++ 600
3' gggggataactgcagttactgccatttacggggcggaccgtaatacgggtcatgtactggaataccctgaaaggatgaaccgtcatgtagatgcataatc
o ++++++

o

5' tcatcgctattaccatgggtgatgcgggttttggcagtagacatcaatgggcgtggatagcgggttgactcacggggatttccaagtctccacccattgacgt
o ++++++ 700
3' agtagcgataatggtaccactacgcaaaaaccgtcatgtagttaccgcacctatcgccaaactgagtgcccctaaagggttcagaggtgggtaactgca
o ++++++

o

5' caatgggagttgttttggcaccaaaatcaacgggactttccaaaatgctgtaacaactccgccccattgacgcaaatggcggttaggcgtgtacgggtg
o ++++++ 800
3' gttaccctcaaacaaaaccgtggttttagttgcctgaaagggttttacagcattggtgagggcgggtaactgcgtttaccggccatccgcacatgccacc
o ++++++

o

5' gaggtctatagaccagatctgagcctgggagctctctggctaactaggaaccactgcttaagcctcaataaagcttgcttgagtgctcaagtagtg
o ++++++ 900
3' ctccagatatctggctagactcggaccctcgagagaccgattgatccctgggtgacgaattcggagttatttgaacggaactcacgaagttcatcac
o ++++++

o LTR

o ++++++

o

o KasI
o NarI
o SfoI
o BbeI

5' tgtgccgctctgttgtgtgactctggtaaactagagatccctcagacccttttagtcagtggtgaaaaatctctagcagtgggcgccgaacagggacttgaa
o ++++++ 1000
3' acacgggcagacaacacactgagaccattgatctctagggagctctgggaaaaatcagtcacaccttttagagatcgtcaccgcgggcttgcctcctgaactt
o ++++++

o LTR

o ++++++

o

o BssHII

5' agcgaagggaaccagaggagctctctcgacgcaggactcggcttgcctgaagcgcgcacggcaagaggcgaggggcggcactggtgagtagcgcacaaa
o ++++++ 1100
3' tcgctttcccttggctcctcagagagactgcgctcctgagccgaacgacttcgcgcgctgcccgttctccgctccccgcgctgaccactcatgcggtttt
o ++++++

o LTR

o ++++++

p201 (pPRIME-CMV-GFP-FF3)

5' attttgactagcggaggctagaaggagagagatgggtgcgagagcgtcagtattaagcgggggagaattagatcgcgatgggaaaaattcgggtaaggc
 o ++++++
 3' taaaactgatcgcctccgatcttctctctctaccacgctctcgcagtcataattcgccccctcttaattctagcgtacccttttttaagccaattccg
 o
 o

LTR

5' caggggaaagaaaaatataataaacatatagtatgggcaagcagggagctagaacgattcgcagttaatcctggcctgtagaaacatcagaaggct
 o ++++++
 3' gtcccccttctttttatattttgtatatcataccggttcgctcctcgatcttgtaagcgtcaattaggaccggacaactcttgtagtcttccga
 o
 o

LTR

5' gtagacaaactactgggacagctacaaccatcccttcagacaggatcagaagaacttagatcattatataatacagtagcaaccctctattgtgtgcatca
 o ++++++
 3' catctgtttatgacctgtcgatggtgtaggaagtctgtcctagtctcttgaatctagtaatatattatgtcatcgtgggagataacacacgtagt
 o
 o

LTR

5' aaggatagagataaaaagacaccaaggaagctttagacaagatagaggaagagcaaaacaaaagtaagaccaccgcacagcaagcggccggcgcgctgat
 o ++++++
 3' ttctatctctatcttctgtggttctctcgaaatctgttctatctccttctcgtttcttctcattctggtggcgtgctcgttcgccggccggcgcgacta
 o
 o

SapI

FseI

LTR

5' cttcagacctggaggaggagatgagggacaattggagaagtgaattatataaataaaagtagtaaaaattgaaccattaggagtagcaccaccaag
 o ++++++
 3' gaagtctggacctcctcctctataactcctgtaacctctcacttaatatattatattcatcatttttaacttggtaatcctcatcgtgggtggttc
 o
 o

EcoNI

LTR

HIV RRE

5' gcaaagagaagagtggcagagagaaaaagagcagtggaataggagctttgttccttgggttcttgggagcagcaggaagcactatgggpcagcgt
 o ++++++
 3' cgtttctctctcaccacgtctctcttttctcgtcacccttatcctcgaacaaggaaccaagaaccctcgtcgtcctcgtgatacccgctcgca
 o
 o

HIV RRE

5' caatgacgctgacggtacaggccagacaattatgtctggtatagtcagcagcagaacaatttgctgagggctattgaggcgcaacagcatctgttgca
 o ++++++
 3' gttactgcgactgccatgtccggtctgtaataacagaccatcacgctcgtcgtcttgtaaacgactcccgataactccgcgtgtcgttagacaacgt
 o
 o

BbvCI

HIV RRE

5' actcacagtctggggcatcaagcagctccaggcaagaatcctggctgtgaaagatacctaaaggatcaacagctcctggggatttggggtgctctgga
 o ++++++
 3' tgagtgtcagacccttagtctcgtcgaggtccgttcttaggaccgacaccttctatggatttctagttgtcaggaccctaaacccaacgagacct
 o
 o

HIV RRE

5' aaactcatttgcaccactgctgtgccttggaaatgctagttggagtaataatctctggaacagatttggaaatcacacgacctggatggagtgggacagag
 o ++++++
 3' tttgagtaaacggtgacgacacggaaccttacgatcaacctcattatttagagaccttgtctaaaccttagtgtgctggacctacctcacctgtctc
 o
 o

HIV RRE

5' aaattaacaattacacaagcttaatacactccttaattgaagaatcgaaaaccagcaagaaagaatgaacaagaattattggaattagataaatgggc
 o ++++++
 3' ttaattgttaatgtgttcgaattatgtgaggaattaacttcttagcgttttggctgcttcttcttacttgttcttaataaccttaacttatttaccg
 o
 o

HIV RRE

p201 (pPRIME-CMV-GFP-FF3)

5' aagtttggtgaattggtttaacataacaaattggctgtggtatataaaattattcataatgatagtaggaggctggtaggtttaagaatagtttttggct
 2200
 3' ttcaaacaccttaaccaaattgtattgtttaaccgacaccatataatttaataagtagtactatcatcctccgaaccatccaaattcttatcaaaaacga
 HIV RRE

5' gtactttctatagtgaaatagagtttaggcagggatattcaccattatcgtttcagaccacctccaaccccgaggggacccgacagggcccgaaggaatag
 2300
 3' catgaaagatatcacttatctcaatccgtccctataagtggtaaatagcaaagtctgggtggagggttggggctcccctgggctgtccgggcttctctatc
 HIV RRE

5' aagaagaaggtggagagagagacagagacagatccattcgattagtgaaacggatcggcactcgtgcgccaattctgcagacaaatggcagtattcatcc
 2400
 3' ttcttcttccacctctctctgtctctgtctaggttaagctaatcacttgccttagccgtgacgcacgcggttaagacgtctgtttaccgctcataagtagg
 HIV RRE

5' acaattttaaaagaaaaggggggattgggggtacagtgacgggaaagaatagtagacataatagcaacagacatacaaaactaagaattacaaaaaca
 2500
 3' tgttaaattttctttccccctaacccccatgtcagctcccttcttatcatctgtattatcgttctgtatgtttgatttcttaagtgttttgt
 XbaI NsiI

5' aattacaaaaattcaaaatttccgggttattacagggacagcagagatccagtttggttagtagccggcccgctctagacgtattaccgcatgcatta
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 3' ttaatgttttaagtttaaaagcccaataatgtccctgtcgtctctaggtcaaaccaatcatggccggggcagagatctgcataatggcggtacgtaat
 CMV

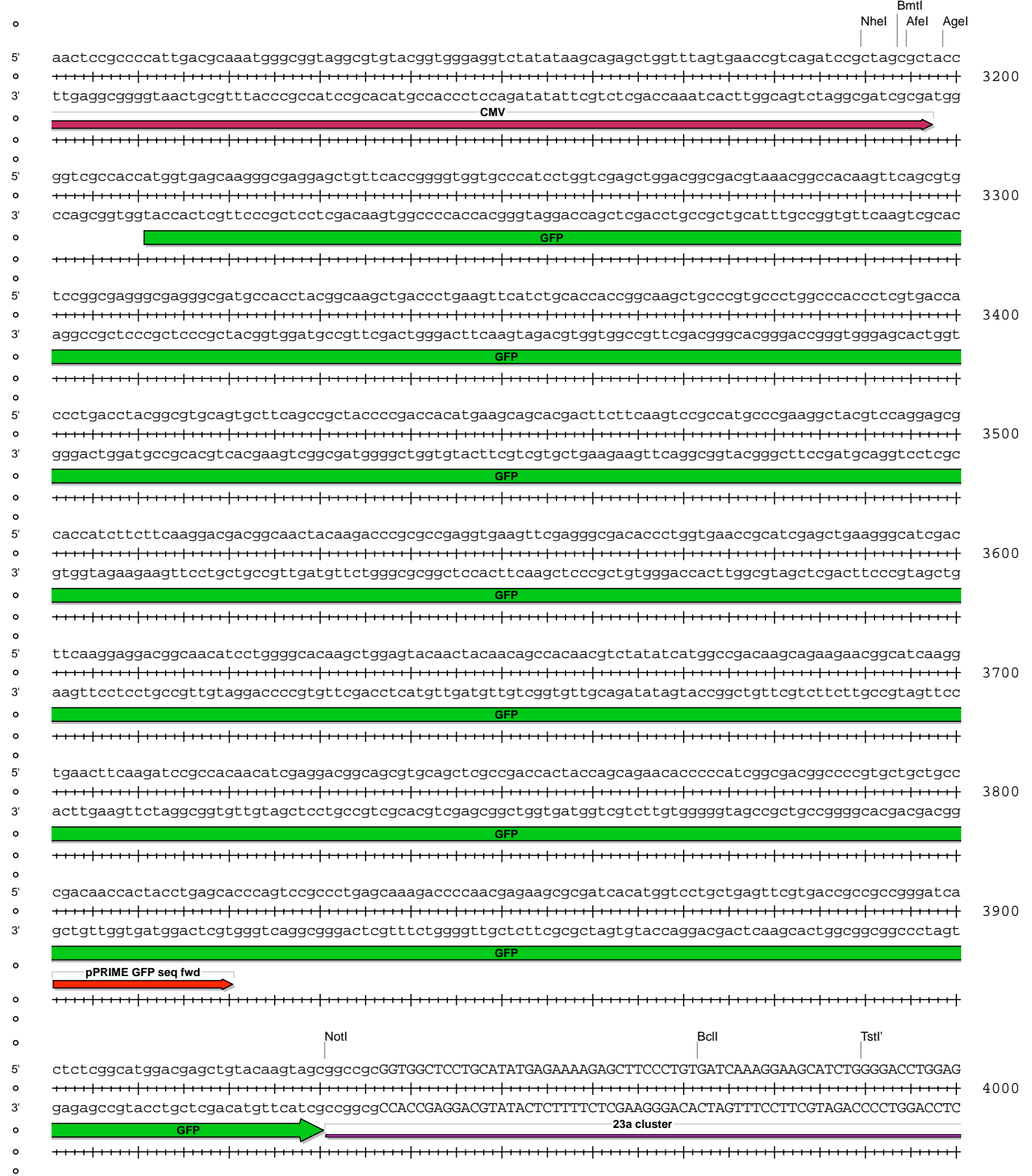
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 3' caataattatcattagttaatgccccagtaatacagtagtccgggtatatacctcaaggcgcaatgtattgaaatgccatttaccggggcggaccgactggcgg
 CMV

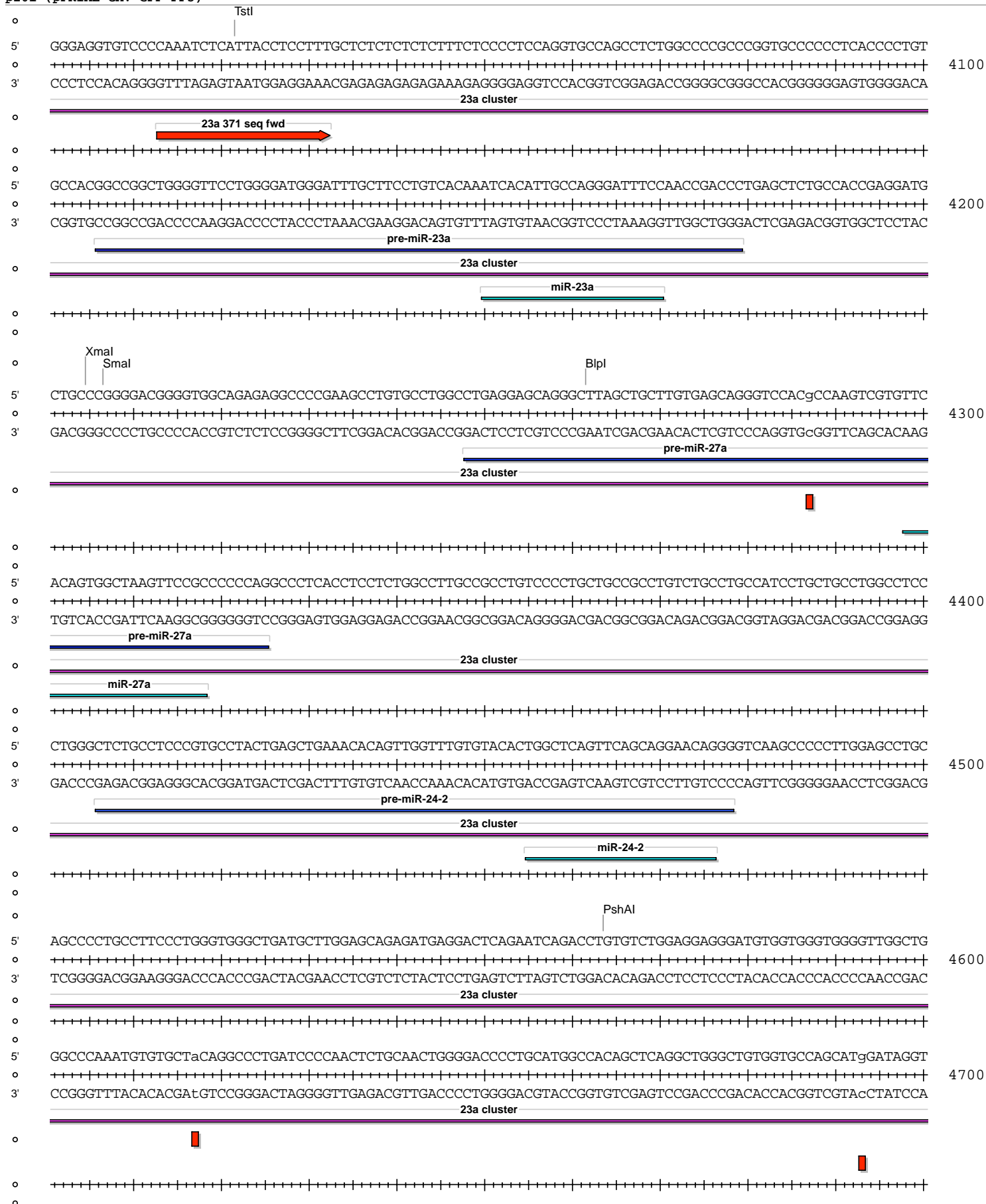
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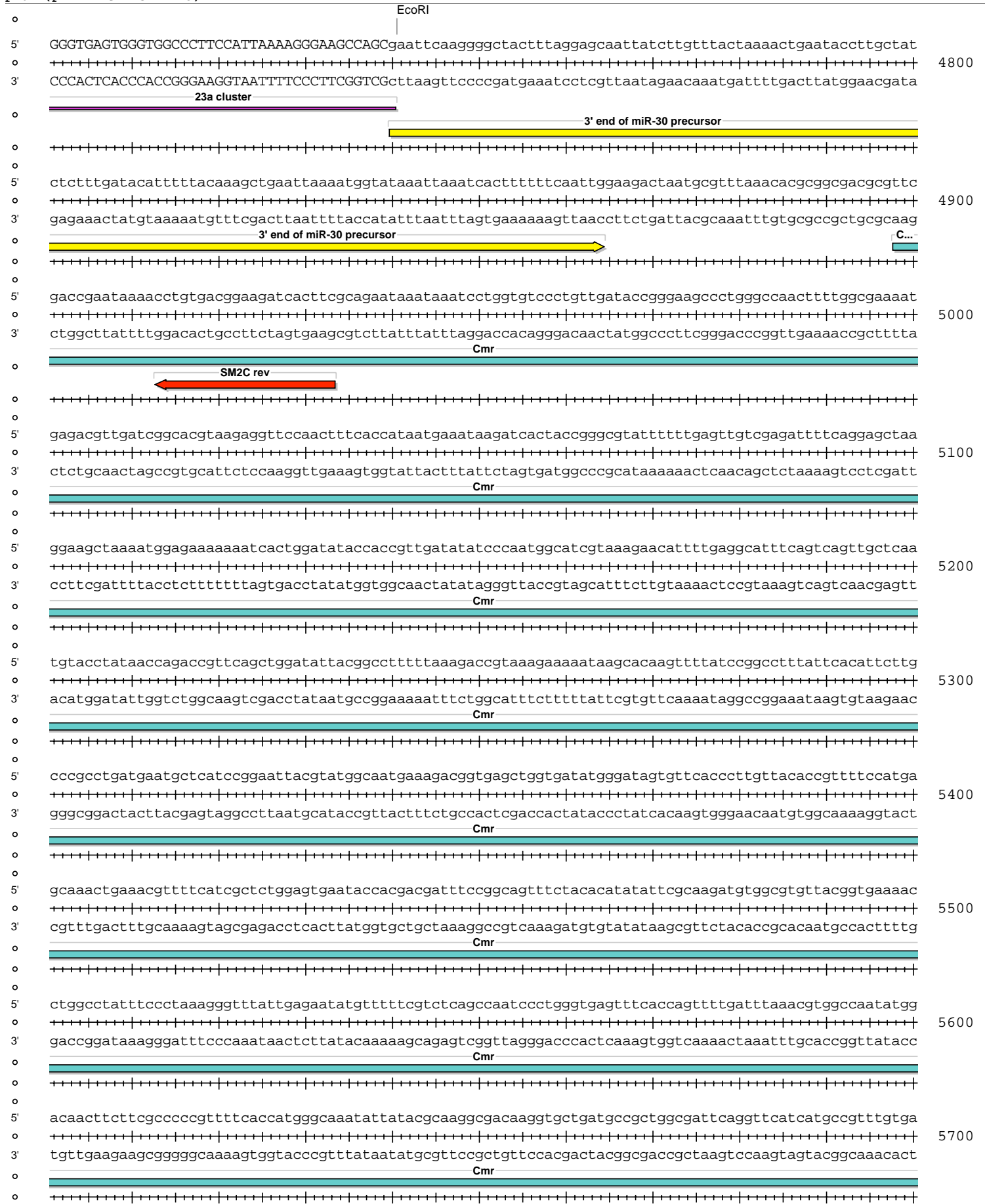
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 CMV

5' tgaccttatgggactttcctacttggcagtagatctacgtatttagtcatcgctattaccatgggtgatgagggtttggcagtagatcaatgggctggata
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 CMV

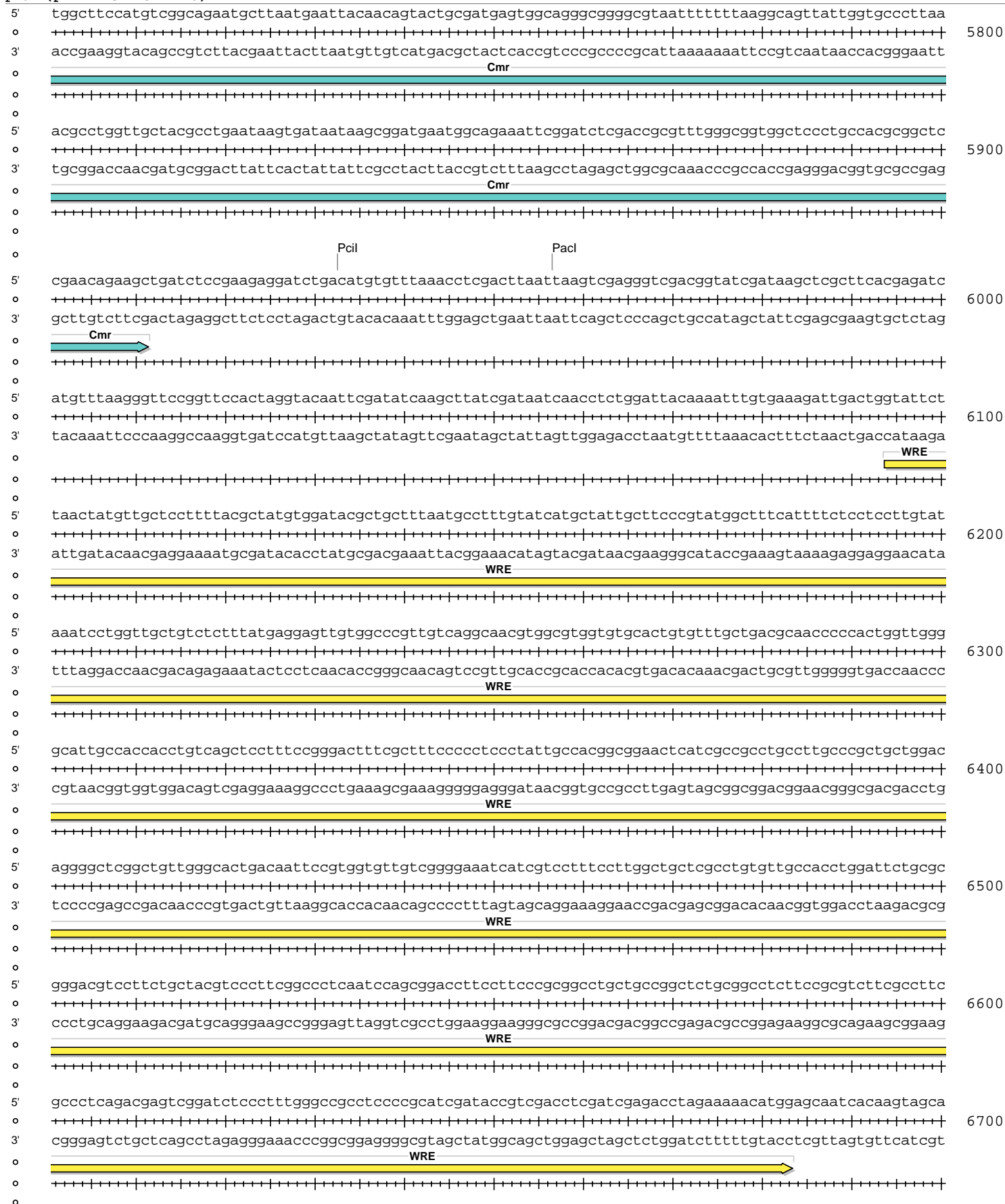
5' gcggtttgactcacggggatttccaagtctccaccattgacgtcaatgggagttgttttggcaccaaaatcaacgggactttccaaaatgtcgtaac
 3100
 3' cgccaaactgagtgcccctaaagggtcagaggtggggttaactgcagttaccctcaaacaaaaccggtgttttagttgcctgaaagggttttacagcattg
 CMV







p201 (pPRIME-CMV-GFP-FF3)



p201 (pPRIME-CMV-GFP-FF3)

5' aatgtatttagaaaaataaacaatataggggttcgcgcacatttccccgaaaagtgccacctgac
o ++++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|
3' ttacataaatctttttatttgtttatccccaaggcgcgtgtaaaggggcttttcacggtggactg
o ++++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|
o

9165