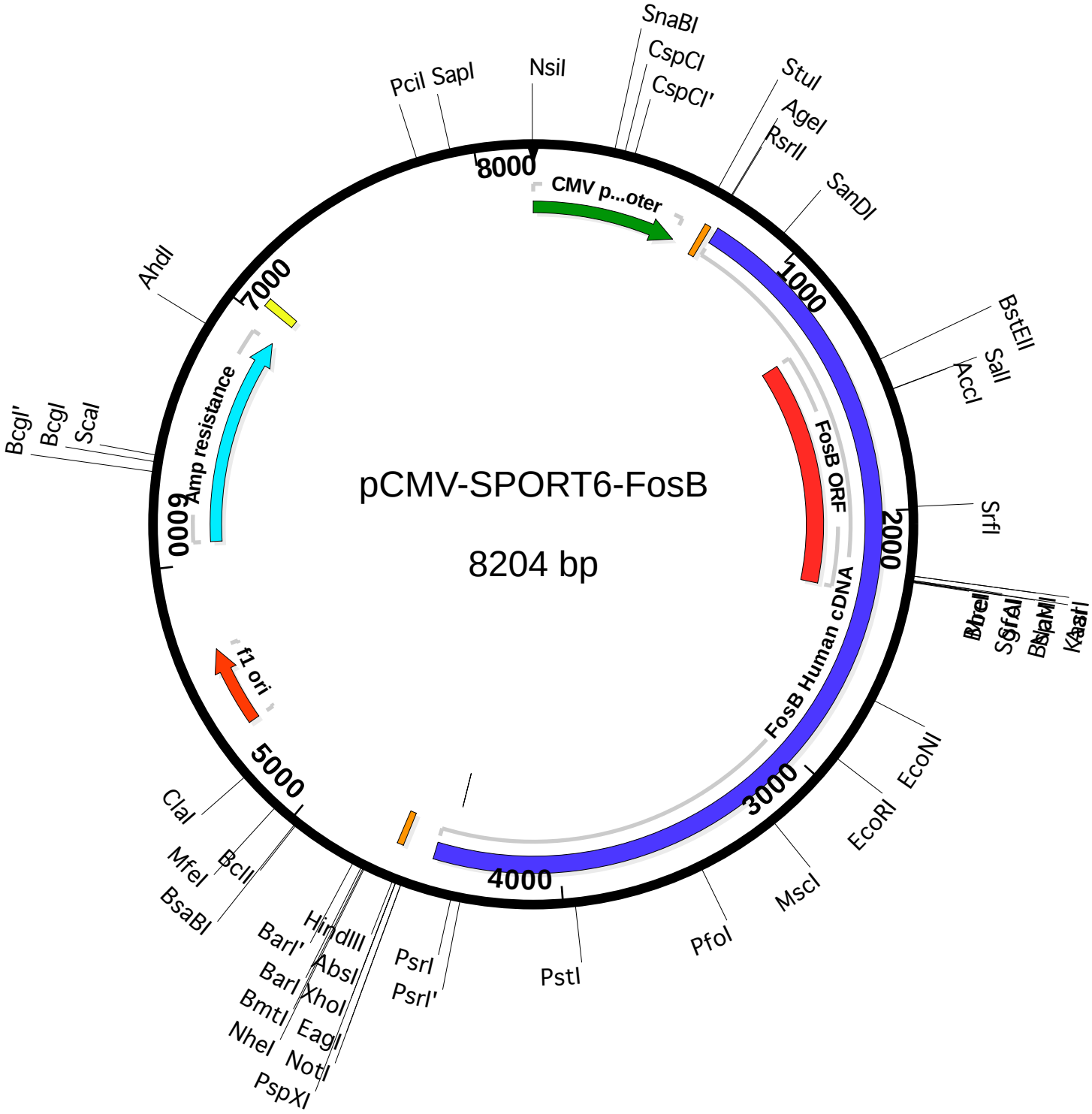
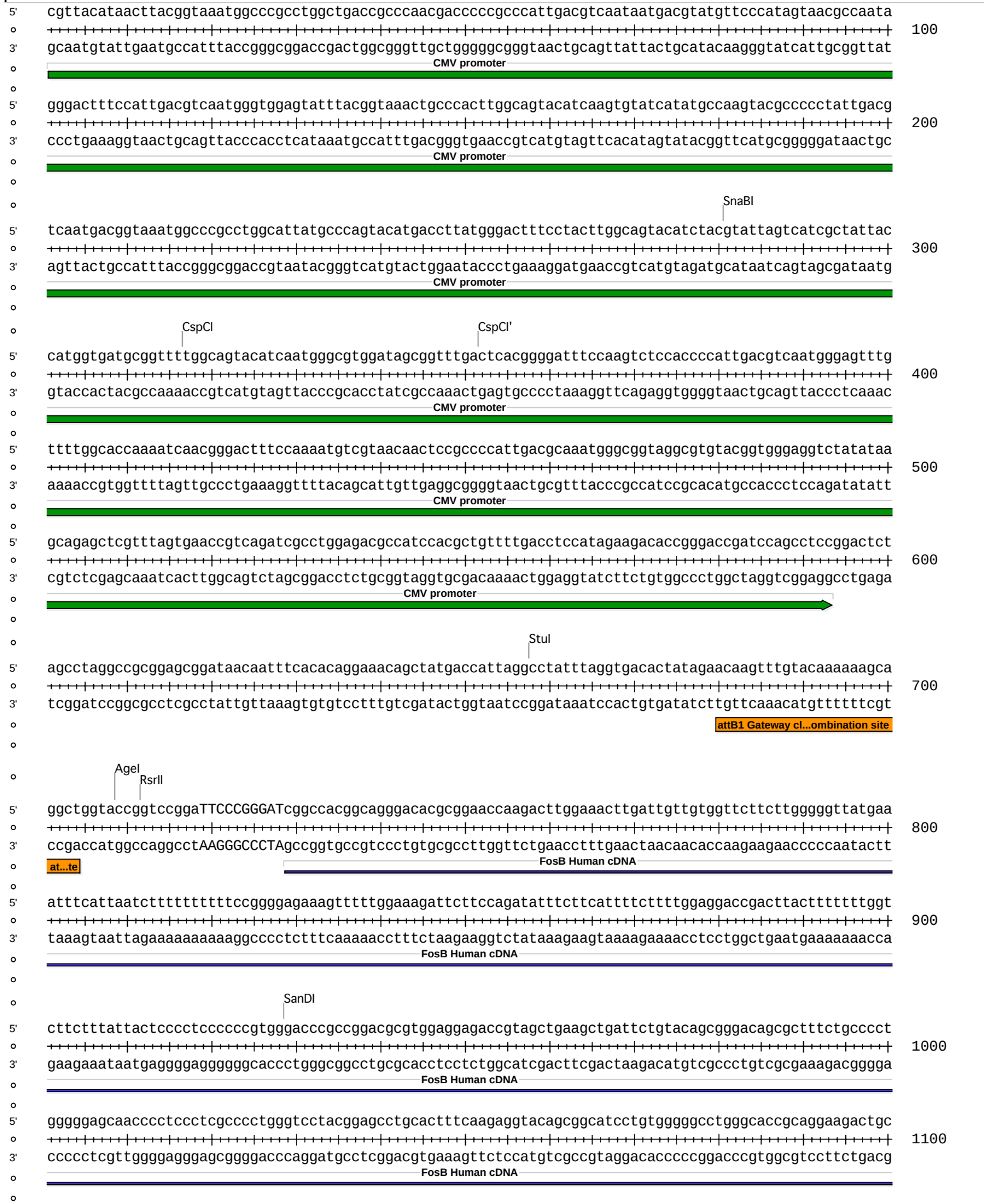
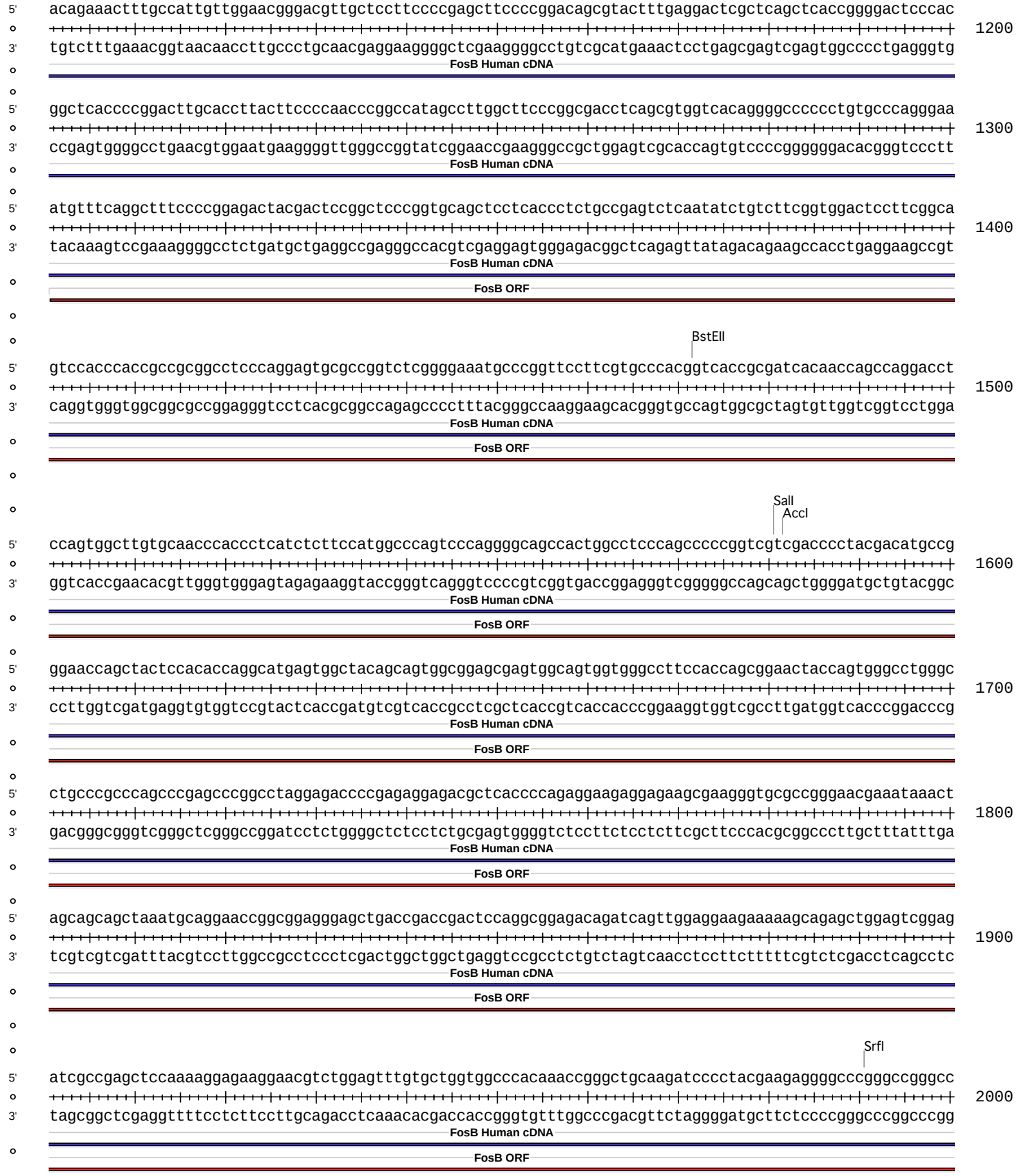
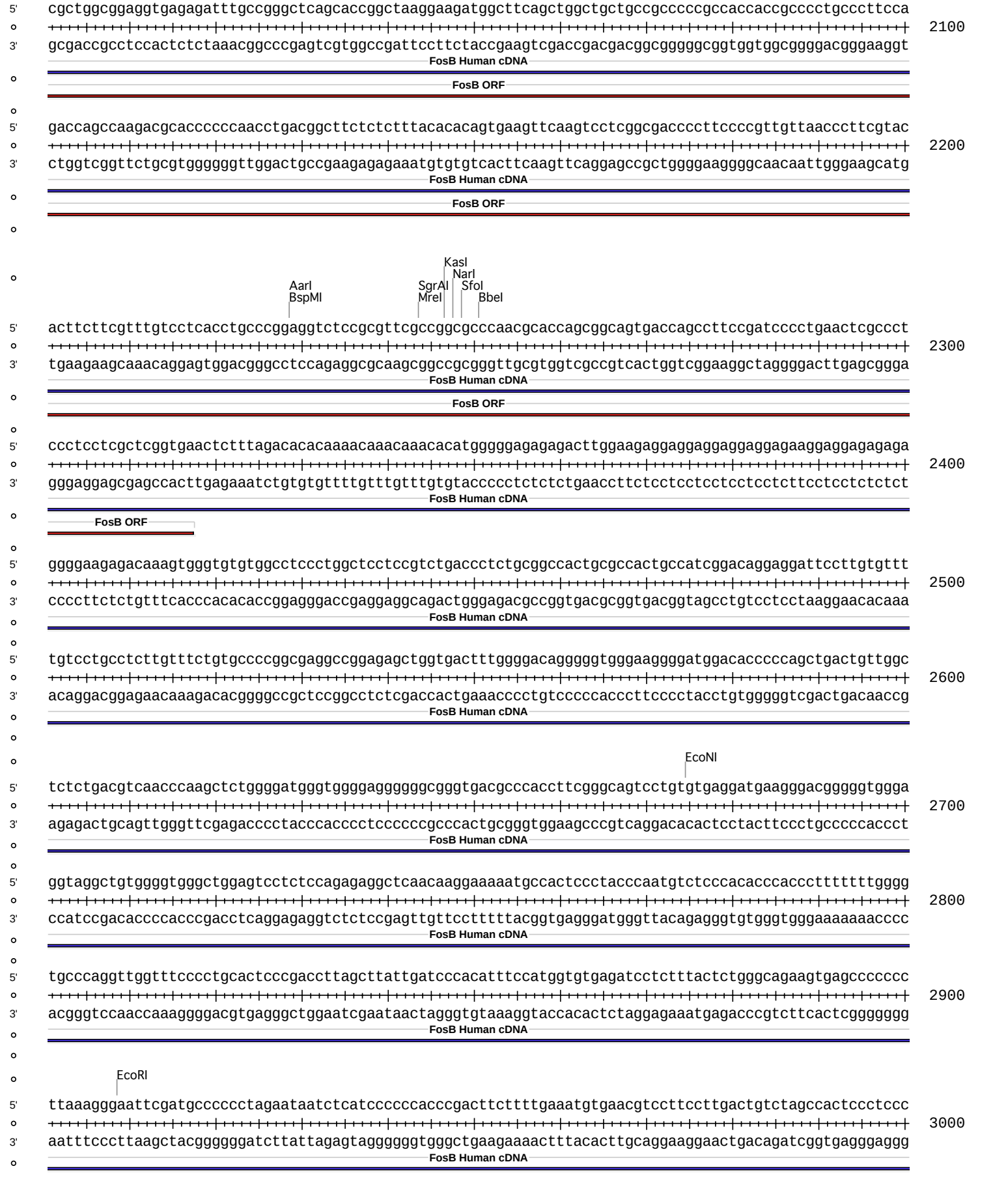
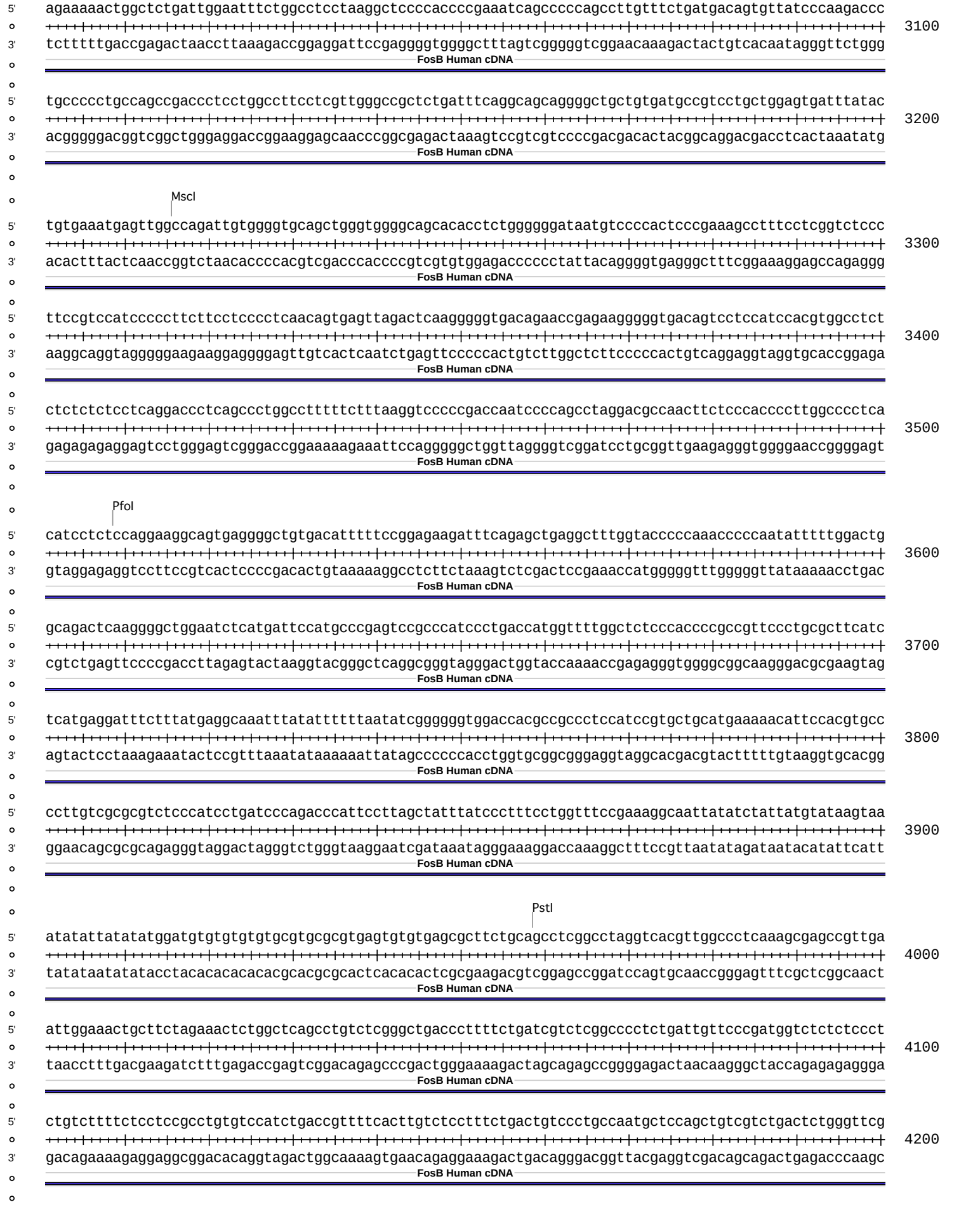

pCMV-SPORT6-FosB
8204 bp
1000
2000
3000
4000
5000
6000
7000
8000
CMV p...oter
FosB ORF
FosB Human cDNA
Amp resistance
f1 ori
SnaBI
CspCI
CspCI'
StuI
AgeI
RsrII
SanDI
BstEII
SalI
AccI
SrfI
EcoNI
EcoRI
MscI
PfoI
PstI
PsrI
PsrI'
HindIII
AbsI
XhoI
EagI
NotI
PspXI
NheI
BmtI
BarI
BarI'
BsaBI
MfeI
BclI
ClaI
AhdI
BcgI'
BcgI
ScaI
PciI
SapI
NsiI

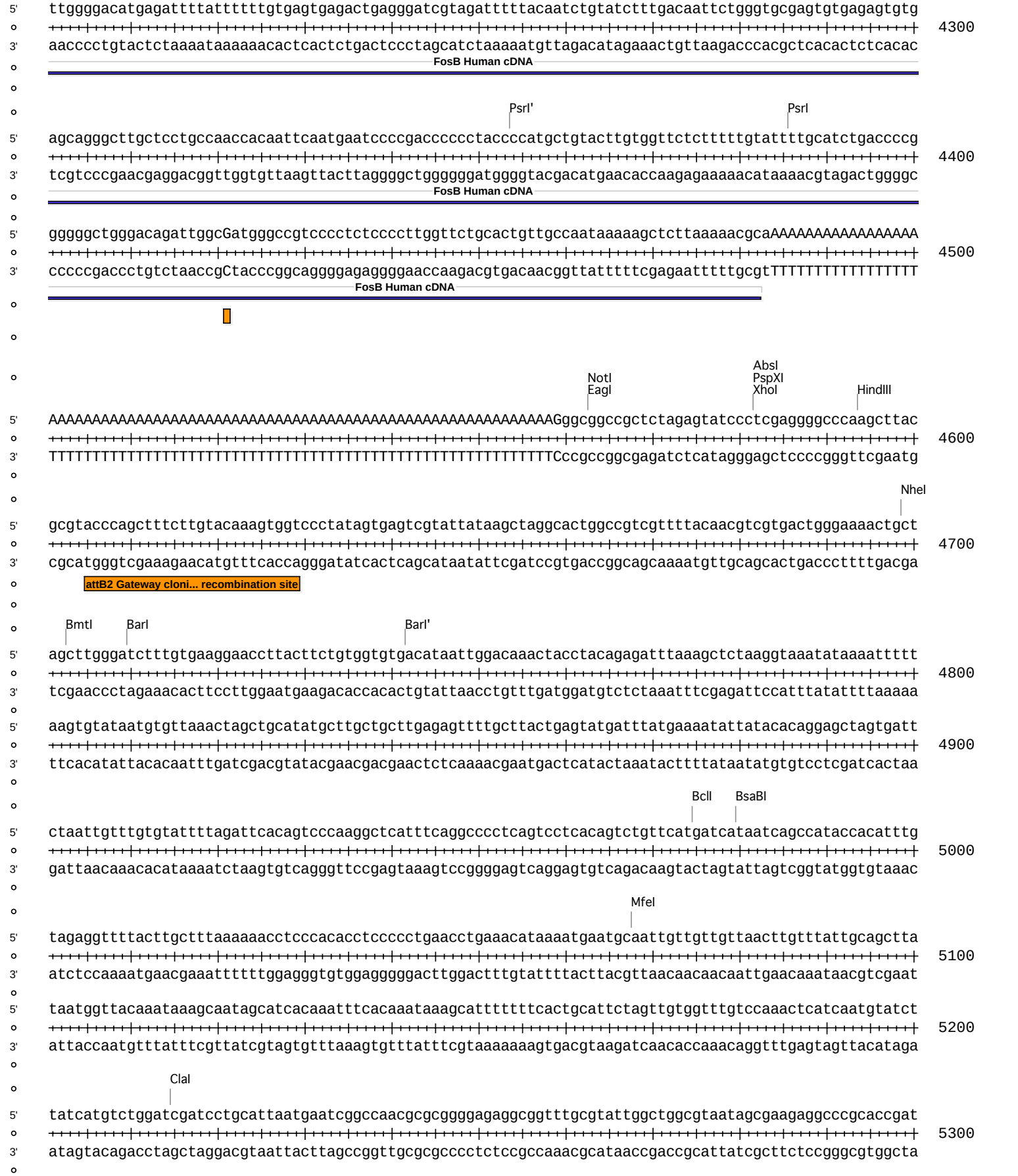
Absent Sites	0	AflII,AleI,AscI,AsiSI,BaeI,BaeI',BamHI,BglII,BmgBI,BsiWI,BssHII,BstBI,BstZ17I,EcoRV,FalI,FalI',FseI,FspAI,MauBI,NruI, PacI,PmeI,PshAI,SbfI,SexAI,SfiI,SgrDI,SpeI,SphI,SwaI,Tth111I
AarI	1	2229 (8204)
AbsI	1	4582 (8204)
AccI	1	1582 (8204)
AgeI	1	709 (8204)
AhdI	1	6872 (8204)
BarI	1	4710 (8204)
BarI'	1	4742 (8204)
BbeI	1	2251 (8204)
BcgI	1	6368 (8204)
BcgI'	1	6334 (8204)
BclI	1	4975 (8204)
BmtI	1	4703 (8204)
BsaBI	1	4980 (8204)
BspMI	1	2229 (8204)
BstEII	1	1472 (8204)
ClaI	1	5215 (8204)
CspCI	1	317 (8204)
CspCI'	1	352 (8204)
EagI	1	4563 (8204)
EcoNI	1	2675 (8204)
EcoRI	1	2909 (8204)
HindIII	1	4594 (8204)
KasI	1	2247 (8204)
MfeI	1	5068 (8204)
MreI	1	2244 (8204)
MscI	1	3216 (8204)
NarI	1	2248 (8204)
NheI	1	4699 (8204)
NotI	1	4563 (8204)
NsiI	1	8202 (8204)
PciI	1	7802 (8204)
PfoI	1	3509 (8204)
PspXI	1	4582 (8204)
PsrI	1	4386 (8204)
PsrI'	1	4354 (8204)
PstI	1	3959 (8204)
RsrII	1	712 (8204)
SalI	1	1581 (8204)
SanDI	1	929 (8204)
SapI	1	7919 (8204)
ScaI	1	6391 (8204)
SfoI	1	2249 (8204)
SgrAI	1	2244 (8204)
SnaBI	1	281 (8204)
SrfI	1	1991 (8204)
StuI	1	658 (8204)
XhoI	1	4582 (8204)

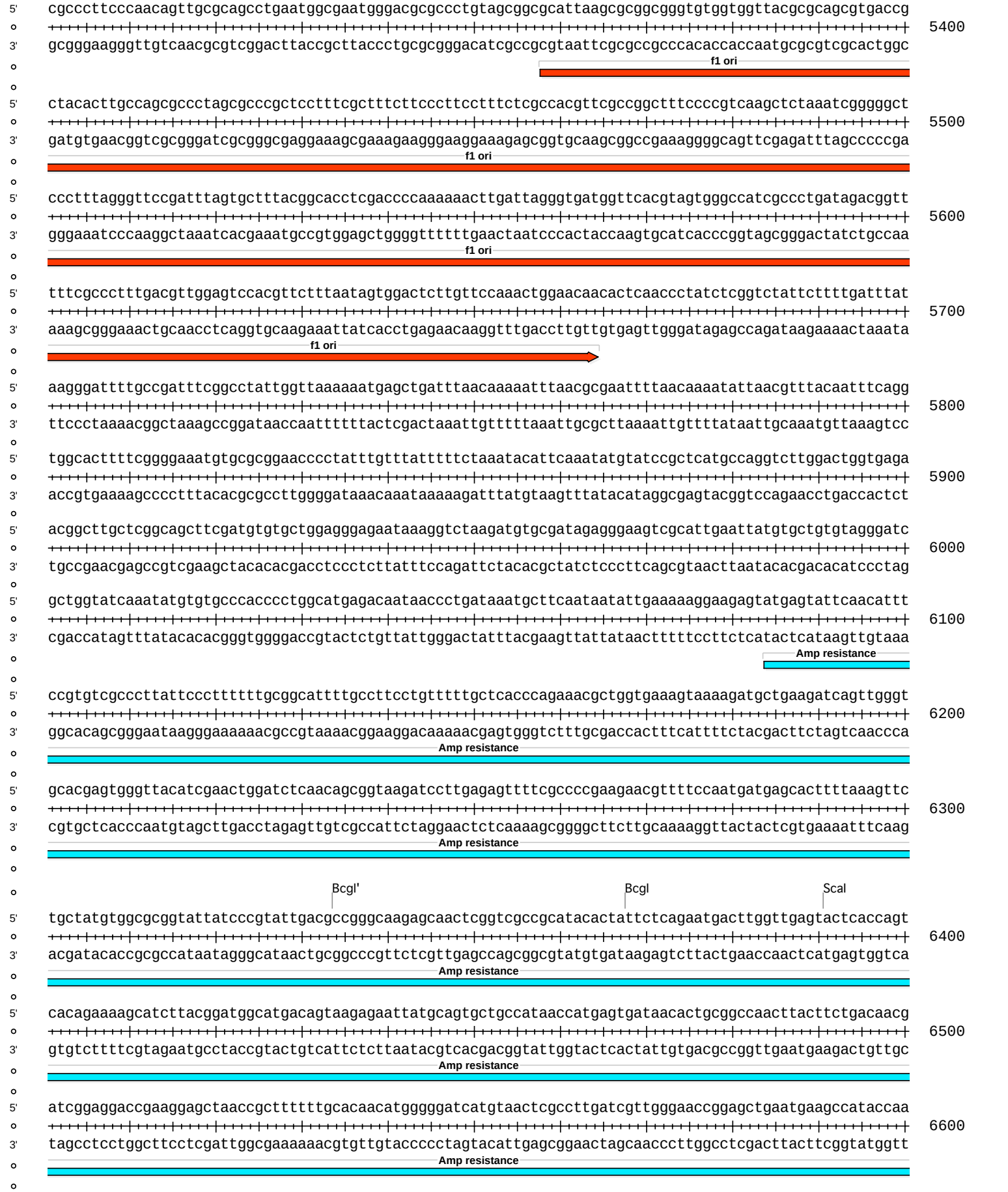

5' cgttacataacttacggtaaatggcccgcctggctgaccgcccaacgacccccgcccattgacgtcaataatgacgtatgttcccatagtaacgccaata
100
3' gcaatgtattgaatgccatttaccgggcggaccgactggcgggttgctgggggcgggtaactgcagttattactgcatacaagggtatcattgcggttat
CMV promoter
5' gggactttccattgacgtcaatgggtggagtatttacggtaaactgcccacttggcagtacatcaagtgtatcatatgccaagtacgccccctattgacg
200
3' ccctgaaaggtaactgcagttacccacctcataaatgccatttgacgggtgaaccgtcatgtagttcacatagtatacggttcatgcgggggataactgc
CMV promoter
SnaBI
5' tcaatgacggtaaatggcccgcctggcattatgcccagtacatgaccttatgggactttcctacttggcagtacatctacgtattagtcatcgctattac
300
3' agttactgccatttaccgggcggaccgtaatacgggtcatgtactggaataccctgaaaggatgaaccgtcatgtagatgcataatcagtagcgataatg
CMV promoter
CspCI
CspCI'
5' catggtgatgcggttttggcagtacatcaatgggcgtggatagcggtttgactcacggggatttccaagtctccaccccattgacgtcaatgggagtttg
400
3' gtaccactacgccaaaaccgtcatgtagttacccgcacctatcgccaaactgagtgcccctaaaggttcagaggtggggtaactgcagttaccctcaaac
CMV promoter
5' ttttggcaccaaaatcaacgggactttccaaaatgtcgtaacaactccgccccattgacgcaaatgggcggtaggcgtgtacggtgggaggtctatataa
500
3' aaaaccgtggttttagttgccctgaaaggttttacagcattgttgaggcggggtaactgcgtttacccgccatccgcacatgccaccctccagatatatt
CMV promoter
5' gcagagctcgtttagtgaaccgtcagatcgcctggagacgccatccacgctgttttgacctccatagaagacaccgggaccgatccagcctccggactct
600
3' cgtctcgagcaaatcacttggcagtctagcggacctctgcggtaggtgcgacaaaactggaggtatcttctgtggccctggctaggtcggaggcctgaga
CMV promoter
StuI
5' agcctaggccgcggagcggataacaatttcacacaggaaacagctatgaccattaggcctatttaggtgacactatagaacaagtttgtacaaaaaagca
700
3' tcggatccggcgcctcgcctattgttaaagtgtgtcctttgtcgatactggtaatccggataaatccactgtgatatcttgttcaaacatgttttttcgt
attB1 Gateway cl...ombination site
AgeI
RsrII
5' ggctggtaccggtccggaTTCCCGGGATcggccacggcagggacacgcggaaccaagacttggaaacttgattgttgtggttcttcttgggggttatgaa
800
3' ccgaccatggccaggcctAAGGGCCCTAgccggtgccgtccctgtgcgccttggttctgaacctttgaactaacaacaccaagaagaaccccccaatactt
at...te
FosB Human cDNA
5' atttcattaatctttttttttttccggggagaaagtttttggaaagattcttccagatatttcttcattttcttttggaggaccgacttactttttttggt
900
3' taaagtaattagaaaaaaaaaaggcccctctttcaaaaacctttctaagaaggtctataaagaagtaaaagaaaacctcctggctgaatgaaaaaaacca
FosB Human cDNA
SanDI
5' cttctttattactcccctcccccgtgggacccgccggacgcgtggaggagaccgtagctgaagctgattctgtacagcgggacagcgctttctgcccct
1000
3' gaagaaataatgaggggaggggggcaccctgggcggcctgcgcacctcctctggcatcgacttcgactaagacatgtcgccctgtcgcgaaagacgggga
FosB Human cDNA
5' gggggagcaacccctccctcgcccctgggtcctacggagcctgcactttcaagaggtacagcggcatcctgtgggggcctgggcaccgcaggaagactgc
1100
3' ccccctcgttggggagggagcggggacccaggatgcctcggacgtgaaagttctccatgtcgccgtaggacacccccggacccgtggcgtccttctgacg
FosB Human cDNA


5' acagaaactttgccattgttggaacgggacgttgctccttccccgagcttccccggacagcgtactttgaggactcgctcagctcaccgggactcccac
1200
3' tgtctttgaaacggtaacaaccttgccctgcaacgaggaaggggctcgaaggggcctgtcgcatgaaactcctgagcgagtcgagtggcccctgagggtg
FosB Human cDNA
5' ggctcaccccggacttgcaccttacttccccaacccggccatagccttggcttcccggcgacctcagcgtggtcacaggggccccctgtgcccagggaa
1300
3' ccgagtggggcctgaacgtggaatgaaggggttgggccggtatcggaaccgaagggccgctggagtcgcaccagtgtccccgggggacacgggtcccctt
FosB Human cDNA
5' atgtttcaggctttccccggagactacgactccggctcccggtgcagctcctcacctctgccgagtctcaatatctgtcttcggtggactccttcggca
1400
3' tacaaagtccgaaaggggcctctgatgctgaggccgagggccacgtcgaggagtgggagacggctcagagttatagacagaagccacctgaggaagccgt
FosB Human cDNA
FosB ORF
BstEII
5' gtccacccaccgccgcggcctcccaggagtgcgccggtctcggggaaatgcccggttccttcgtgcccacggtcaccgcgatcacaaccagccaggacct
1500
3' caggtgggtggcggcgccggagggtcctcacgcggccagagccccttacgggccaaggaagcacgggtgccagtggcgctagtgttggtcggtcctgga
FosB Human cDNA
FosB ORF
SalI
AccI
5' ccagtggcttgtgcaacccaccctcatctcttccatggcccagtcccaggggcagccactggcctcccagcccccggtcgtcgaccctacgacatgccg
1600
3' ggtcaccgaacacgttgggtgggagtagagaaggtaccgggtcagggtccccgtcggtgaccggagggtcgggggccagcagctggggatgctgtacggc
FosB Human cDNA
FosB ORF
5' ggaaccagctactccacaccaggcatgagtggctacagcagtggcggagcgagtggcagtggtgggccttccaccagcggaactaccagtgggcctgggc
1700
3' ccttggtcgatgaggtgtggtccgtactcaccgatgtcgtcaccgcctcgctcaccgtcaccacccggaaggtggtcgccttgatggtcacccggacccg
FosB Human cDNA
FosB ORF
5' ctgcccgcccagcccgagcccggcctaggagaccccgagaggagacgctcaccccagaggaagaggagaagcgaagggtgcgccgggaacgaaataaact
1800
3' gacgggcgggtcgggctcgggccggatcctctggggctctcctctgcgagtggggtctccttctcctcttcgcttcccacgcggcccttgctttatttga
FosB Human cDNA
FosB ORF
5' agcagcagctaaatgcaggaaccggcggagggagctgaccgaccgactccaggcggagacagatcagttggaggaagaaaaagcagagctggagtcggag
1900
3' tcgtcgtcgatttacgtccttggccgcctccctcgactggctggctgaggtccgcctctgtctagtcaacctccttctttttcgtctcgacctcagcctc
FosB Human cDNA
FosB ORF
SrfI
5' atcgccgagctccaaaaggagaaggaacgtctggagtttgtgctggtggcccacaaaccgggctgcaagatcccctacgaagaggggcccgggccgggcc
2000
3' tagcggctcgaggttttcctcttccttgcagacctcaaacacgaccaccgggtgtttggcccgacgttctaggggatgcttctccccgggcccggcccgg
FosB Human cDNA
FosB ORF


5' cgctggcggaggtgagagatttgccgggctcagcaccggctaaggaagatggcttcagctggctgctgccgcccccgccaccaccgcccctgcccttcca
2100
3' gcgaccgcctccactctctaaacggcccgagtcgtggccgattccttctaccgaagtcgaccgacgacggcgggggcggtggtggcggggacgggaaggt
FosB Human cDNA
FosB ORF
5' gaccagccaagacgcacccccccaacctgacggcttctctctttacacacagtgaagttcaagtcctcggcgacccctccccgttgttaacccttcgtac
2200
3' ctggtcggttctgcgtgggggggttggactgccgaagagagaaatgtgtgtcacttcaagttcaggagccgctggggaaggggcaacaattgggaagcatg
FosB Human cDNA
FosB ORF
KasI
NarI
AarI
BspMI
SgrAI
MreI
SfoI
BbeI
5' acttcttcgtttgtcctcacctgcccggaggtctccgcgttcgccggcgcccaacgcaccagcggcagtgaccagccttccgatcccctgaactcgccct
2300
3' tgaagaagcaaacaggagtggacgggcctccagaggcgcaagcggccgcgggttgcgtggtcgccgtcactggtcggaaggctaggggacttgagcggga
FosB Human cDNA
FosB ORF
5' ccctcctcgctcggtgaactctttagacacacaaaacaaacaaacacatgggggagagagacttggaagaggaggaggaggaggagaaggaggagagaga
2400
3' gggaggagcgagccacttgagaaatctgtgtgttttgtttgtttgtgtacccctctctctgaaccttctcctcctcctcctcttcctcctctctct
FosB Human cDNA
FosB ORF
5' ggggaagagacaaagtgggtgtgtggcctccctggctcctccgtctgaccctctgcggccactgcgccactgccatcggacaggaggattccttgtgttt
2500
3' ccccttctctgtttcacccacacaccggagggaccgaggaggcagactgggagacgccggtgacgcggtgacggtagcctgtcctcctaaggaacacaaa
FosB Human cDNA
5' tgtcctgcctcttgtttctgtgccccggcgaggccggagagctggtgactttggggacaggggtgggaaggggatggacacccccagctgactgttggc
2600
3' acaggacggagaacaaagacacggggccgctccggcctctcgaccactgaaacccctgtcccccacccttcccctacctgtgggggtcgactgacaaccg
FosB Human cDNA
EcoNI
5' tctctgacgtcaacccaagctctggggatgggtggggaggggggcgggtgacgcccaccttcgggcagtcctgtgtgaggatgaagggacgggggtggga
2700
3' agagactgcagttgggttcgagacccctacccacccctccccccgcccactgcgggtggaagcccgtcaggacacactcctacttccctgccccccaccct
FosB Human cDNA
5' ggtaggctgtggggtgggctggagtcctctccagagaggctcaacaaggaaaaatgccactccctacccaatgtctcccacacccacccttttttgggg
2800
3' ccatccgacaccccacccgacctcaggagaggtctctccgagttgttccttttacggtgagggatgggttacagagggtgtgggtgggaaaaaaacccc
FosB Human cDNA
5' tgcccaggttggtttcccctgcactcccgaccttagcttattgatcccacatttccatggtgtgagatcctctttactctgggcagaagtgagcccccc
2900
3' acgggtccaaccaaaggggacgtgagggctggaatcgaataactagggtgtaaaggtaccacactctaggagaaatgagacccgtcttcactcgggggg
FosB Human cDNA
EcoRI
5' ttaaagggaattcgatgccccccctagaataatctcatcccccccacccgacttctttttgaaatgtgaacgtccttccttgactgtctagccactccctccc
3000
3' aatttcccttaagctacgggggggatcttattagagtaggggggtgggctgaagaaaactttacacttgcaggaaggaactgacagatcggtgagggaggg
FosB Human cDNA


5' agaaaaactggctctgattggaatttctggcctcctaaggctccccaccccgaaatcagcccccagccttgtttctgatgacagtgttatcccaagaccc
3100
3' tctttttgaccgagactaaccttaaagaccggaggattccgaggggtggggctttagtcgggggtcggaacaaagactactgtcacaatagggttctggg
FosB Human cDNA
5' tgccccctgccagccgaccctcctggccttcctcgttgggccgctctgatttcaggcagcaggggctgctgtgatgccgtcctgctggagtgatttatac
3200
3' acgggggacggtcggctgggaggaccggaaggagcaacccggcgagactaaagtccgtcgtccccgacgacactacggcaggacgacctcactaaatatg
FosB Human cDNA
MscI
5' tgtgaaatgagttggccagattgtggggtgcagctgggtggggcagcacacctctgggggggataatgtccccactcccgaaagcctttcctcggtctccc
3300
3' acactttactcaaccggtctaacaccccacgtcgacccacccccgtcgtgtggagacccccctattacaggggtgagggctttcggaaaggagccagaggg
FosB Human cDNA
5' ttccgtccatccccttcttcctcccctcaacagtgagttagactcaaggggggtgacagaaccgagaaggggggtgacagtcctccatccacgtggcctct
3400
3' aaggcaggtaggggggaagaaggaggggagttgtcactcaatctgagttcccccactgtcttggctcttcccccactgtcaggaggtaggtgcaccggaga
FosB Human cDNA
5' ctctctctcctcaggaccctcagccctggccttttttctttaaggtccccccgaccaatccccagcctaggacgccaacttctcccacccccttggcccctca
3500
3' gagagagaggagtcctgggagtcgggaccggaaaaagaaattccaggggggctggttaggggtcggatcctgcggttgaagagggtggggaaccggggagt
FosB Human cDNA
PfoI
5' catcctctccaggaaggcagtgaggggctgtgacatttttccggagaagatttcagagctgaggctttggtacccccaaaccccccaatatttttggactg
3600
3' gtaggagaggtccttccgtcactccccgacactgtaaaaaggcctcttctaaagtctcgactccgaaaccatgggggtttgggggttataaaaaacctgac
FosB Human cDNA
5' gcagactcaaggggctggaatctcatgattccatgcccgagtccgcccatccctgaccatggttttggctctcccaccccgccgttccctgcgcttcatc
3700
3' cgtctgagttccccgaccttagagtactaaggtacgggctcaggcgggtagggactggtaccaaaaccgagagggtggggcggcaagggacgcgaagtag
FosB Human cDNA
5' tcatgaggatttctttatgaggcaaatttatatttttaatatcgggggggtggaccacgccgccctccatccgtgctgcatgaaaaacattccacgtgcc
3800
3' agtactcctaaagaaatactccgtttaaatataaaaaattatagccccccacctggtgcggcgggaggtaggcacgacgtacttttgtaaggtgcacgg
FosB Human cDNA
5' ccttgtcgcgcgtctcccatcctgatcccagacccattccttagctatttatccctttcctggtttccgaaaggcaattatatctattatgtataagtaa
3900
3' ggaacagcgcgcagagggtaggactagggtctgggtaaggaatcgataaatagggaaaggaccaaaggctttccgttaatatagataatacatattcatt
FosB Human cDNA
PstI
5' atatattatatatggatgtgtgtgtgtgcgtgcgcgtgagtgtgtgagcgcttctgcagcctcggcctaggtcacgttggccctcaaagcgagccgttga
4000
3' tatataatatatacctacacacacacacgcacgcgcactcacacactcgcgaagacgtcggagccggatccagtgcaaccgggagtttcgctcggcaact
FosB Human cDNA
5' attggaaactgcttctagaaactctggctcagcctgtctcgggctgacccttttctgatcgtctcggcccctctgattgttcccgatggtctctctccct
4100
3' taacctttgacgaagatctttgagaccgagtcggacagagcccgactgggaaaagactagcagagccggggagactaacaagggctaccagagagaggga
FosB Human cDNA
5' ctgtcttttctcctccgcctgtgtccatctgaccgttttcacttgtctcctttctgactgtccctgccaatgctccagctgtcgtctgactctgggttcg
4200
3' gacagaaaagaggaggcggacacaggtagactggcaaaagtgaacagaggaaagactgacagggacggttacgaggtcgacagcagactgagacccaagc
FosB Human cDNA


5' ttggggacatgagattttatttttgtgagtgagactgagggatcgtagatttttacaatctgtatctttgacaattctgggtgcgagtgtgagagtgtg
4300
3' aacccctgtactctaaaataaaaaacactcactctgactccctagcatctaaaaatgttagacatagaaactgttaagacccacgctcacactctcacac
FosB Human cDNA
PsrI'
PsrI
5' agcagggcttgctcctgccaaccacaattcaatgaatccccgacccccctaccccatgctgtacttgtggttctctttttgtattttgcatctgaccccg
4400
3' tcgtcccgaacgaggacggttggtgttaagttacttaggggctgggggggatggggtacgacatgaacaccaagagaaaaacataaaacgtagactggggc
FosB Human cDNA
5' gggggctgggacagattggcGatgggccgtcccctctccccttggttctgcactgttgccaataaaaagctcttaaaaacgcaAAAAAAAAAAAAAAAAA
4500
3' cccccgaccctgtctaaccgCtacccggcaggggagaggggaaccaagacgtgacaacggttatttttcgagaatttttgcgtTTTTTTTTTTTTTTTT
FosB Human cDNA
AbsI
PspXI
NotI
EagI
XhoI
HindIII
5' AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGggcggccgctctagagtatccctcgaggggcccaagcttac
4600
3' TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCccgccggcgagatctcatagggagctccccgggttcgaatg
NheI
5' gcgtacccagctttcttgtacaaagtggtccctatagtgagtcgtattataagctaggcactggccgtcgttttacaacgtcgtgactgggaaaactgct
4700
3' cgcatgggtcgaaagaacatgtttcaccagggatatcactcagcataatattcgatccgtgaccggcagcaaaatgttgcagcactgacccttttgacga
attB2 Gateway cloni... recombination site
BmtI
BarI
BarI'
5' agcttgggatctttgtgaaggaaccttacttctgtggtgtgacataattggacaaactacctacagagatttaaagctctaaggtaaatataaaatttttt
4800
3' tcgaaccctagaaacacttccttggaatgaagacaccacactgtattaacctgtttgatggatgtctctaaatttcgagattccatttatattttaaaaa
5' aagtgtataatgtgttaaactagctgcatatgcttgctgcttgagagttttgcttactgagtatgatttatgaaaatattatacacaggagctagtgatt
4900
3' ttcacatattacacaatttgatcgacgtatacgaacgacgaactctcaaaacgaatgactcatactaaatacttttataatatgtgtcctcgatcactaa
BclI
BsaBI
5' ctaattgtttgtgtattttagattcacagtcccaaggctcatttcaggcccctcagtcctcacagtctgttcatgatcataatcagccataccacatttg
5000
3' gattaacaaacacataaaatctaagtgtcagggttccgagtaaagtccggggagtcaggagtgtcagacaagtactagtattagtcggtatggtgtaaac
MfeI
5' tagaggttttacttgctttaaaaaacctcccacacctccccctgaacctgaaacataaaatgaatgcaattgttgttgttaacttgtttattgcagctta
5100
3' atctccaaaatgaacgaaatttttggagggtgtggaggggacttggactttgtattttacttacgttaacaacaacaattgaacaaataacgtcgaat
5' taatggttacaaataaagcaatagcatcacaaatttcacaaataaagcatttttttcactgcattctagttgtggtttgtccaaactcatcaatgtatct
5200
3' attaccaatgtttatttcgttatcgtagtgtttaaagtgtttatttcgtaaaaaaagtgacgtaagatcaacaccaaacaggtttgagtagttacataga
ClaI
5' tatcatgtctggatcgatcctgcattaatgaatcggccaacgcgcggggagaggcggtttgcgtattggctggcgtaatagcgaagaggcccgcaccgat
5300
3' atagtacagacctagctaggacgtaattacttagccggttgcgcgcccctctccgccaaacgcataaccgaccgcattatcgcttctccgggcgtggcta


5'
cgcccttcccaacagttgcgcagcctgaatggcgaatgggacgcgccctgtagcggcgcattaagcgcggcgggtgtggtggttacgcgcagcgtgaccg
5400
3'
gcgggaagggttgtcaacgcgtcggacttaccgcttaccctgcgcgggacatcgccgcgtaattcgcgccgcccacaccaccaatgcgcgtcgcactggc
f1 ori
5'
ctacacttgccagcgccctagcgcccgctcctttcgctttcttcccttcctttctcgccacgttcgccggctttccccgtcaagctctaaatcgggggct
5500
3'
gatgtgaacggtcgcgggatcgcgggcgaggaaagcgaaagaagggaaggaaagagcggtgcaagcggccgaaaggggcagttcgagatttagccccga
f1 ori
5'
ccctttagggttccgatttagtgctttacggcacctcgaccccaaaaaacttgattagggtgatggttcacgtagtgggccatcgccctgatagacggtt
5600
3'
gggaaatcccaaggctaaatcacgaaatgccgtggagctggggtttttgaactaatcccactaccaagtgcatcacccggtagcgggactatctgccaa
f1 ori
5'
tttcgccctttgacgttggagtccacgttctttaatagtggactcttgttccaaactggaacaacactcaaccctatctcggtctattcttttgatttat
5700
3'
aaagcgggaaactgcaacctcaggtgcaagaaattatcacctgagaacaaggtttgaccttgttgtgagttgggatagagccagataagaaaactaaata
f1 ori
5'
aagggattttgccgatttcggcctattggttaaaaaatgagctgatttaacaaaaatttaacgcgaattttaacaaaatattaacgtttacaatttcagg
5800
3'
ttccctaaaacggctaaagccggataaccaatttttttactcgactaaattgtttttaaattgcgcttaaaattgttttataattgcaaatgttaaagtcc
5'
tggcacttttcggggaaatgtgcgcggaacccctatttgtttatttttctaaatacattcaaatatgtatccgctcatgccaggtcttggactggtgaga
5900
3'
accgtgaaaagccccttttacacgcgccttggggataaacaaataaaaagatttatgtaagtttatacataggcgagtacggtccagaacctgaccactct
5'
acggcttgctcggcagcttcgatgtgtgctggagggagaataaaggtctaagatgtgcgatagagggaagtcgcattgaattatgtgctgtgtagggatc
6000
3'
tgccgaacgagccgtcgaagctacacacgacctccctcttatttccagattctacacgctatctcccttcagcgtaacttaatacacgacacatccctag
5'
gctggtatcaaatatgtgtgcccacccctggcatgagacaataaccctgataaatgcttcaataatattgaaaaaggaagagtatgagtattcaacattt
6100
3'
cgaccatagtttatacacacgggtggggaccgtactctgttattgggactatttacgaagttattataacttttccttctcatactcataagttgtaaa
Amp resistance
5'
ccgtgtcgcccttattcccttttttgcggcattttgccttcctgtttttgctcacccagaaacgctggtgaaagtaaaagatgctgaagatcagttgggt
6200
3'
ggcacagcgggaataagggaaaaaacgccgtaaaacggaaggacaaaaacgagtgggtctttgcgaccactttcattttctacgacttctagtcaaccca
Amp resistance
5'
gcacgagtgggttacatcgaactggatctcaacagcggtaagatccttgagagttttcgccccgaagaacgttttccaatgatgagcacttttaaagttc
6300
3'
cgtgctcacccaatgtagcttgacctagagttgtcgccattctaggaactctcaaaagcggggcttcttgcaaaaggttactactcgtgaaaatttcaag
Amp resistance
BcgI'
BcgI
ScaI
5'
tgctatgtggcgcggtattatcccgtattgacgccgggcaagagcaactcggtcgccgcatacactattctcagaatgacttggttgagtactcaccagt
6400
3'
acgatacaccgcgccataatagggcataactgcggcccgttctcgttgagccagcggcgtatgtgataagagtcttactgaaccaactcatgagtggtca
Amp resistance
5'
cacagaaaagcatcttacggatggcatgacagtaagagaattatgcagtgctgccataaccatgagtgataacactgcggccaacttacttctgacaacg
6500
3'
gtgtcttttcgtagaatgcctaccgtactgtcattctcttaatacgtcacgacggtattggtactcactattgtgacgccggttgaatgaagactgttgc
Amp resistance
5'
atcggaggaccgaaggagctaaccgcttttttgcacaacatgggggatcatgtaactcgccttgatcgttgggaaccggagctgaatgaagccataccaa
6600
3'
tagcctcctggcttcctcgattggcgaaaaaacgtgttgtacccccctagtacattgagcggaactagcaacccttggcctcgacttacttcggtatggtt
Amp resistance


Amp resistance
Amp resistance
AhdI
Amp resistance
Amp resistance
loxP
PciI
SapI

```
5'  tttcaatattattgaagcatttatcagggttattgtctcatgagcggatacatatttgaatgtatttagaaaaataaacaaataggggttccgcgcacat
o   ++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++  8100
3'  aaagttataataacttcgtaaatagtcccaataacagagtactcgcctatgtataaacttacataaatctttttatttgtttatccccaaggcgcgtgta
o

5'  ttccccgaaaagtgccacctgacgtctaagaaaccattattatcatgacattaacctataaaaataggcgtagtacgaggccctttcactcattagatgc
o   ++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++  8200
3'  aaggggcttttcacggtggactgcagattctttggtaataatagtactgtaattggatattttatccgcatcatgctccgggaaagtgagtaatctacg
o

o       NsiI
        |
5'  atgt
o   ++++                                                                                                  8204
3'  taca
o
```