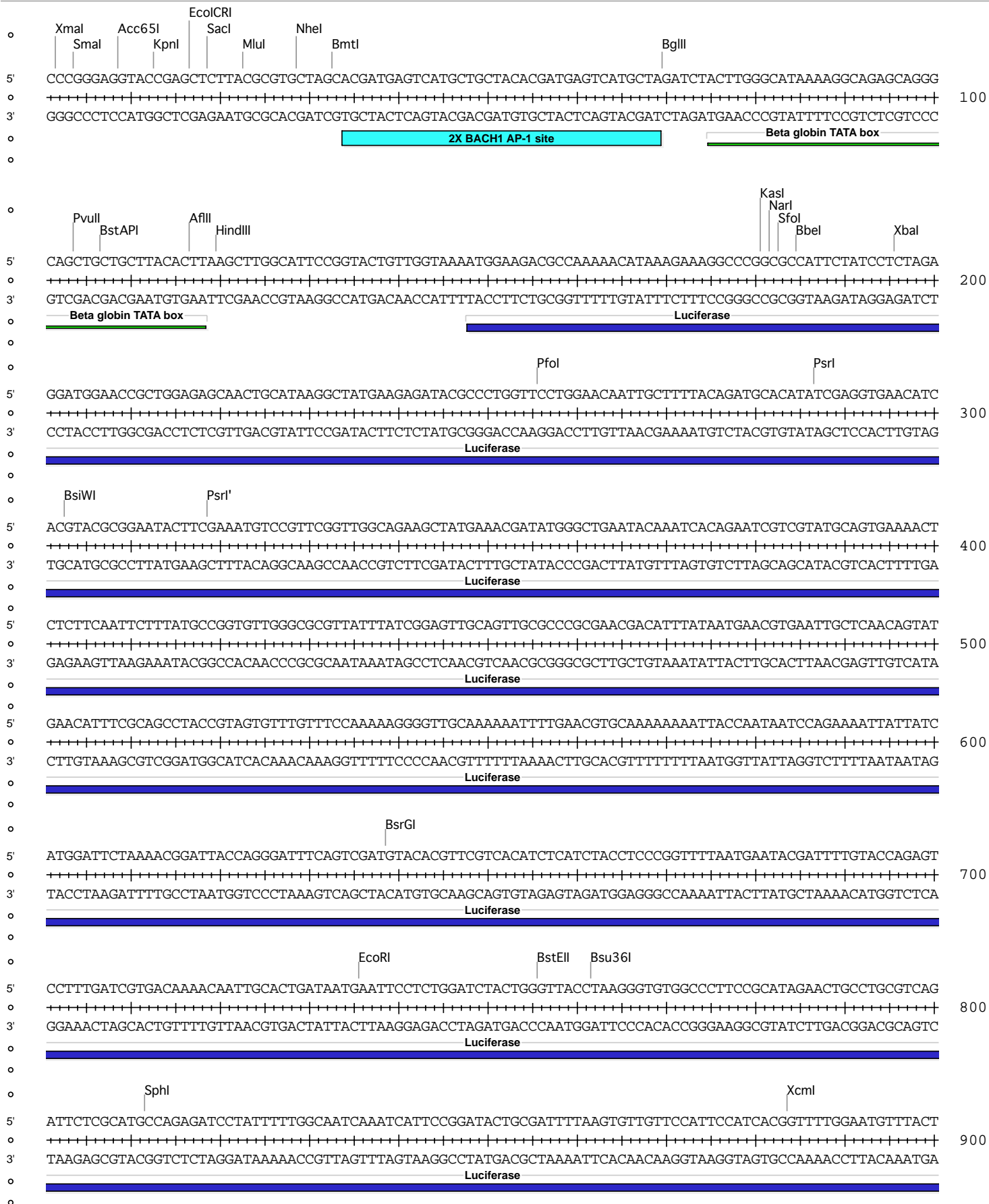


Absent Sites	0	AarI,AatII,AbSI,Agel,AelI,Apal,AscI,AsiSI,AvrII,BaeI,BaeI',BbvCI,BclI,BlpI,BmgBI,Bpu10I,BsmBI,BssHII,BstXI,BstZ17I,BtgI,CspCI,CspCI',EagI,FalI,Fall',FseI,FspAI,MauBI,MreI,NcoI,NdeI,NotI,NruI,Nsil,PasI,PmeI,PmlI,PspOMI,PspXI,PstI,RsrII,SacII,SanDI,SbfI,SexAI,SfiI,SgrDI,SnaBI,SpeI,SrfI,StuI,Swal,Tth111,XhoI,ZraI
Acc65I	1	(8) 9 (5661)
AccI	1	(2817) 2818 (2852)
AfeI	1	(2942) 2943 (2727)
AfIII	1	(116) 117 (5553)
AhdI	1	(3959) 3960 (1710)
AjuI	1	(1037) 1038 (4632)
AjuI'	1	(1005) 1006 (4664)
Alol	1	(5179) 5180 (490)
Alol'	1	(5147) 5148 (522)
ArsI	1	(1336) 1337 (4333)
ArsI'	1	(1304) 1305 (4365)
BamHI	1	(2810) 2811 (2859)
BarI	1	(1965) 1966 (3704)
BarI'	1	(1997) 1998 (3672)
BbeI	1	(184) 185 (5485)
BglII	1	(69) 70 (5600)
BmtI	1	(32) 33 (5637)
BsaBI	1	(2578) 2579 (3091)
BsaI	1	(4020) 4021 (1649)
BsgI	1	(2347) 2348 (3322)
BsiWI	1	(302) 303 (5367)
BsmFI	1	(1438) 1439 (4231)
BspMI	1	(1546) 1547 (4123)
BsrGI	1	(638) 639 (5031)
BstAPI	1	(106) 107 (5563)
BstEII	1	(755) 756 (4914)
Bsu36I	1	(761) 762 (4908)
Clal	1	(1513) 1514 (4156)
DrallI	1	(5111) 5112 (558)
EcoICRI	1	(16) 17 (5653)
EcoNI	1	(1765) 1766 (3904)
EcoO109I	1	(1327) 1328 (4342)
EcoRI	1	(735) 736 (4934)
EcoRV	1	(1486) 1487 (4183)
HindIII	1	(119) 120 (5550)
KasI	1	(180) 181 (5489)
KpnI	1	(12) 13 (5657)
MluI	1	(22) 23 (5647)
MscI	1	(1654) 1655 (4015)
NarI	1	(181) 182 (5488)
NheI	1	(28) 29 (5641)
NmeAIII	1	(4108) 4109 (1561)
PacI	1	(1472) 1473 (4197)
PciI	1	(3066) 3067 (2603)
PfIMI	1	(2115) 2116 (3554)
PfoI	1	(255) 256 (5414)
PpuMI	1	(1327) 1328 (4342)
PshAI	1	(2881) 2882 (2788)
Psrl	1	(286) 287 (5383)

Psrl'	1	(318) 319 (5351)
Pvull	1	(103) 104 (5566)
Sacl	1	(18) 19 (5651)
Sall	1	(2816) 2817 (2853)
Scal	1	(4439) 4440 (1230)
Sfol	1	(182) 183 (5487)
SgrAI	1	(1576) 1577 (4093)
Smal	1	(3) 4 (5666)
SphI	1	(811) 812 (4858)
StyI	1	(2263) 2264 (3406)
XbaI	1	(195) 196 (5474)
XcmI	1	(883) 884 (4786)
XmaI	1	(1) 2 (5668)
XmnI	1	(4558) 4559 (1111)



2X BACH1 AP-1 BG-Luc pGL2basic

5' ACACTCGGATATTTGATATGTGGATTTTCGAGTCGTCTTAATGTATAGATTGAAGAAGAGCTGTTTTTACGATCCCTTCAGGATTACAAAATTCAAAGTG
 1000
 3' TGTGAGCCTATAAACTATACACCTAAAGCTCAGCAGAATTACATATCTAACTTCTTCTCGACAAAATGCTAGGGAAGTCTAATGTTTTAAGTTTCAC
 Luciferase

Ajul' Ajul

5' CGTTGCTAGTACCAACCCATTTTTCATTCTTCGCCAAAAGCACCTGATTGACAAATACGATTTATCTAATTTACACGAAATTGCTTCTGGGGGCGCACC
 1100
 3' GCAACGATCATGTTGGGATAAAAGTAAGAAGCGGTTTTTCGTGAGACTAACTGTTTATGCTAAATAGATTAAATGTGCTTTAACGAAGACCCCGCGTGG
 Luciferase

5' TCTTTCGAAAGAAGTCGGGGAAGCGGTTGCAAAACGCTTCCATCTTCCAGGGATACGACAAGGATATGGGCTCACTGAGACTACATCAGCTATTCTGATT
 1200
 3' AGAAAGCTTTCTTCAGCCCTTCGCCAACGTTTTGCGAAGGTAGAAGTCCCTATGCTGTTCTTATACCCGAGTGACTCTGATGTAGTCGATAAGACTAA
 Luciferase

5' ACACCCGAGGGGATGATAAACCGGGCGCGGTTCGTAAGTTGTTCCATTTTTTGAAGCGAAGGTTGTGGATCTGGATACCGGGAAAACGCTGGGGCTTA
 1300
 3' TGTGGGCTCCCCCTACTATTTGGCCCGCCAGCCATTTCAACAAGGTAAAAAATTCGCTTCCAACACCTAGACCTATGGCCCTTTTGCAGCCCGCAAT
 Luciferase

ArsI' EcoO109I PpuMI Arsl

5' ATCAGAGAGGCGAATTATGTGTCAGAGGACCTATGATTATGTCCGTTATGTAACAATCCGGAAGCGACCAACGCCTTGATTGACAAGGATGGATGGCT
 1400
 3' TAGTCTCTCCGCTTAATACACAGTCTCTGGATACTAATACAGGCCAATACATTTGTTAGGCCCTTCGCTGGTTGCGGAACTAACGTTCCTACCTACCGA
 Luciferase

BsmFI PacI EcoRV

5' ACATTCTGGAGACATAGCTTACTGGGACGAAGACGAACACTTCTTCATAGTTGACCGCTTGAAGTCTTTAATTAAATACAAAGGATATCAGGTGGCCCC
 1500
 3' TGTAAGACCTCTGTATCGAATGACCCTGCTTCTGCTTGTGAAGAAGTATCAACTGGCGAATTCAGAAATTAATTTATGTTTCTATAGTCCACCGGGG
 Luciferase

Clal BspMI SgrAI

5' GCTGAATTGGAATCGATATTGTTACAACACCCCAACATCTTCGACGCGGGCGTGGCAGGCTTCCCGACGATGACGCCGTTGAACCTCCCGCCGCGTTG
 1600
 3' CGACTTAACCTTAGCTATAACAATGTTGTGGGGTTGTAGAAGCTGCGCCCGCACCGTCCAGAAGGGCTGCTACTGCGGCCACTTGAAGGGCGGGCAAC
 Luciferase

MscI

5' TTGTTTTGGAGCACGAAAGACGATGACGGAAAAAGAGATCGTGGATTACCTGGCCAGTCAAGTAACAACCGGAAAAAGTTGCGCGGAGGAGTTGTGTT
 1700
 3' AACAAAACCTCGTGCCTTTCTGCTACTGCCTTTTCTCTAGCACCTAATGCACCGGTCAGTTCATTGTTGGCGCTTTTTCAACGCGCTCTCAACACAA
 Luciferase

EcoNI

5' TGTGGACGAAGTACCGAAAGGCTTACCGGAAAACCTCGACGCAAGAAAAATCAGAGAGATCCTCATAAAGGCCAAGAAGGGCGGAAAGTCCAAATTGTAA
 1800
 3' ACACCTGCTTCATGGCTTTCCAGAATGGCCTTTTGGAGCTGCGTCTTTTTTAGTCTCTTAGGAGTATTTCCGGTCTTCCCGCCTTTTCAGTTTAAACATT
 Luciferase

5' AATGTAACCTGATTTCAGCGATGACGAAATCTTAGCTATTGTAATACTGCGATGAGTGGCAGGGCGGGCGTAATTTTTTAAAGGCAGTTATTTGGTGCC
 1900
 3' TTACATTGACATAAGTCGCTACTGCTTTAAGAATCGATAACATTATGACGCTACTCACCGTCCCGCCCGCATTAAAAAATTCGCTCAATAACCACGGG

o

5' TTAACGCCTGGTGTACGCCTGAATAAGTGATAATAAGCGGATGAATGGCAGAAATTCGCCGGATCTTTGTGAAGGAACCTTACTTCTGTGGTGTGACA 2000
o
3' AATTTCGGGACCACGATGCGGACTTATTCACTATTATTTCGCTACTTACCGTCTTTAAGCGGCTAGAAACACTTCCTTGAATGAAGACACCACACTGT
o

5' TAATGGACAAACTACCTACAGAGATTTAAAGCTCTAAGGTAAATATAAAATTTTAAAGTGTATAATGTGTTAAACTACTGATTCTAATTGTTTGTGTAT 2100
o
3' ATTAACCTGTTTGTATGGATGTCTCTAAATTTTCGAGATTCCATTTATATTTTAAAAATTCACATATTACACAATTTGATGACTAAGATTAACAAAACACATA
o

o PflMI

5' TTTAGATTCCAACCTATGGAAGTGTGAATGGGAGCAGTGGTGAATGCCTTTAATGAGGAAAACCTGTTTGTGCTCAGAAGAAATGCCATCTAGTGATGA 2200
o
3' AAATCTAAGGTTGGATACCTTGACTACTTACCCTCGTCACCACCTTACGGAAATTAATCCTTTTGGACAAAACGAGTCTTCTTTACGGTAGATCACTACT
o

o Styl

5' TGAGGCTACTGCTGACTCTCAACATTCTACTCCTCCAAAAAGAAGAGAAAGGTAGAAGACCCCAAGGACTTTCCTTCAGAATTGCTAAGTMTTTTGTGAGT 2300
o
3' ACTCCGATGACGACTGAGAGTTGTAAGATGAGGAGGTTTTCCTTCTCTTTCATCTTCTGGGGTTCCTGAAAGGAAGTCTTAACGATTCAAAAAACTCA
o

o BsgI

5' CATGCTGTGTTTAGTAATAGAAGTCTTGCTTGGCTTTGCTATTTACACCACAAAGGAAAAGCTGCACTGCTATACAAGAAAATATGGAAAAATATTCTG 2400
o
3' GTACGACACAAATCATATCTTGAAGAACGAAACGATAAATGTGGTGTTCCTTTTCGACGTGACGATATGTTCTTTAATACCTTTTATAAGAC
o

5' TAACCTTTATAAGTAGCATAACAGTTATAATCATAACTACTGTTTTCCTTACTCCACACAGGCATAGAGTGTCTGCTATTAATAACTATGCTCAAAA 2500
o
3' ATTTGAAATATTCATCCGTATTGTCAATATTAGTATTGTATGACAAAAAGAATGAGGTGTTCGGTATCTCACAGACGATAATTATTGATACGAGTTTT
o

o BsaBI

5' ATTTGTGTACCTTTAGCTTTTAAATTTGTAAAGGGTTAATAAGGAATATTTGATGTATAGTGCCTTGACTAGAGATCATAATCAGCCATACCACATTTGT 2600
o
3' TAACACATGGAAATCGAAAAATTAACATTTCCCAATTAATCCTTATAAACTACATATCACGGAAGTATCTCTAGTATTAGTCGGTATGGTGTAAACA
o

SV40 late polyA

5' AGAGGTTTTACTTGTCTTAAAAAACCTCCACACCTCCCCTGAACTGAAACATAAAATGAATGCAATTGTTGTTGTTAACTGTTTATTGCAGCTTAT 2700
o
3' TCTCCAAAATGAACGAAATTTTGGAGGGTGTGGAGGGGACTTGGACTTTGTATTTACTTACGTTAAACAACAATTTGAACAAAATAACGTCGAATA
o

SV40 late polyA

5' AATGGTTACAAATAAGCAATAGCATCACAATTTACAAATAAAGCATTTTTTCCTGCACTTCTAGTTGTGGTTGTCCAAACTCATCAATGTATCTT 2800
o
3' TTACCAATGTTTATTTCGTTATCGTAGTGTTTAAAGTGTTTATTTTCGTAATAAAGTGCAGTAAAGATCAACACCAACAGGTTTGAGTAGTTACATAGAA
o

SV40 late polyA

o BamHI Sall Accl PshAI

5' ATCATGTCTGGATCCGTCGACCGATGCCCTTGAGAGCCTTCAACCCAGTCAGCTCCTTCCGGTGGGCGGGGCATGACTATCGTCGCCGCACTTATGAC 2900
o
3' TAGTACAGACCTAGGCAGCTGGCTACGGAACTCTCGGAAGTTGGGTGAGTGCAGGAAGGCCACCCGCGCCCGTACTGATAGCAGCGGCGTGAATACTG
o

SV40 late polyA

o Afel

5' TGTCTTCTTTATCATGCAACTCGTAGGACAGGTGCCGGCAGCGCTCTTCCGCTTCCCTCGCTCACTGACTCGCTGCGCTCGGTCGTTCCGGCTGCGGCGAGC 3000
o
3' ACAGAAGAAATAGTACGTTGAGCATCCTGTCCACGGCCGTCGCGAGAAGGCGAAGGAGCGAGTACTGAGCGACGCGAGCCAGCAAGCCGACGCGCTCG
o

o PciI

5' GGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAAC 3100
o
3' CCATAGTCGAGTGAGTTTCCGCCATTATGCCAATAGGTGTCTTAGTCCCTATTGCGTCTTCTTGTACTCGTTTTCCGGTCTTTTTCCGGTCTTTG

2X BACH1 AP-1 BG-Luc pGL2basic

5' CGTAAAAAGGCCGCGTTGCTGGCGTTTTTTCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAG
 3' GCATTTTCCGGCGCAACGACCCGCAAAAAGGTATCCGAGGCGGGGGACTGCTCGTAGTGTTTTCTAGCTGCGAGTTCAGTCTCCACCGCTTTGGGCTGTC

5' GACTATAAAGATAACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTCGACCTGCCGCTTACCGGATACCTGTCCGCCTTCTCCCTTC
 3' CTGATATTTCTATGGTCCGCAAAGGGGACCTTCGAGGGAGCACGCGAGAGGACAAGGCTGGGACGGCGAATGGCTATGGACAGGCGAAAGAGGGAAG

5' GGGAAAGCGTGGCGCTTCTCAATGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAG
 3' CCCTTCGCACCGCGAAAGAGTTACGAGTGCACATCCATAGAGTCAAGCCACATCCAGCAAGCGAGGTTTCGACCCGACACACGTGCTTGGGGGGCAAGTC

5' CCCGACCGTGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCA
 3' GGGCTGGCGACGCGGAATAGGCCATTGATAGCAGAAGTCAAGTTCGGCCATTCTGTGCTGAATAGCGGTGACCGTTCGCTCGGTGACCATTGTCTAATCGT

5' GAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCTAACTACGGCTACACTAGAAGGACAGTATTTGGTATCTGCGCTCTGCTGAAGCC
 3' CTCGCTCCATACATCCGCCACGATGTCTCAAGAACTTCAACACCGGATTGATGCCGATGTGATCTTCTGTGCTATAAACCATAGACGCGAGACGACTTCGG

5' AGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACCCCGCTGGTAGCGGTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGA
 3' TCAATGGAAGCCTTTTCTCAACCATCGAGAAGTAGGCCGTTTGT*TTGGTGGCGACCATCGCCACAAAAAAACAAACGTTTCGTCGTCTAATGCGCGTCT

5' AAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGAGATTATCAA
 3' TTTTCTCCTAGAGTCTTCTAGGAAACTAGAAAAGATGCCCCAGACTGCGAGTACCTTGC*TTTGGTGAATTCCTAAAACAGTACTCTAATAGTT

5' AAAGGATCTCACCTAGATCCTTTAAATTAATAAATGAAGTTTTAAATCAATCTAAAGTATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAAT
 3' TTTCTAGAAGTGGATCTAGGAAAATTAATTTTTACTTCAAAATTTAGTTAGATTTTATATATACTCATTGGAACCAGACTGTCAATGGTTACGAATTA

beta-lactamase

AhdI

5' CAGTGAGGCACCTATCTCAGCGATCTGTCTATTTTCGTTTCATCCATAGTTGCCGCTGACTCCCGCTCGTGTAGATAACTACGATACGGGAGGGCTTACCATCT
 3' GTCACTCCGTGGATAGAGTTCGCTAGACAGATAAAGCAAGTAGGTATCAACGGACTGAGGGGAGCAGACATCTATTGATGCTATGCCCTCCCGAATGGTAGA

beta-lactamase

BsaI

5' GGCCCCAGTGTGCAATGATACCGCGAGACCCACGCTCACCGGCTCCAGATTTATCAGCAATAAACCAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTC
 3' CCGGGTACGACGTTACTATGGCGCTC*GGGTGCGAGTGGCCGAGGCTAAATAGTCGTTATTTGGTTCGGTCCGCTTCCCGCTCGCGCTTCCACAG

beta-lactamase

NmeAIII

5' CTGCAACTTTATCCGCCTCCATCCAGTCTATTAATTTGTTGCCGGGAAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTTTGCACAACGTTGTTGCCATTGC
 3' GACGTTGAAATAGGCGGAGGTAGGTGAGATAAATTAACAACGGCCCTTCGATCTCATTATCAAGCGGTCATTATCAAACGCGTTGCAACAACGGTAACG

beta-lactamase

5' TACAGGCATCGTGGTGTACGCTCGTCTGTTGGTATGGCTTCATTCAGCTCCGGTTC*CAACGATCAAGGCGAGTTACATGATCCCCATGTTGTGCAAAA
 3' ATGTCGGTAGCACACAGTGCAGCAGCAAACCATACCGAAGTAAGTCGAGGCCAAGGGTTGCTAGTTC*CGCTCAATGTACTAGGGGGTACAACACGTTT

beta-lactamase

5' AAAGCGGTTAGCTCCTTCGGTCTCCGATCGTTGTGAGAGTAAGTTGGCCGAGTGTATCACTCATGTTTATGGCAGCACTGCATAATCTCTTACTG
 3' TTTCCGAATCGAGGAAGCCAGGAGGCTAGCAACAGTCTTCATTCAACCGCGCTCACAATAGT*GAGTACCAATACCGTTCGTGACGTATTAAGAGAATGAC

beta-lactamase

Scal
5' TCATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGGAGTACTCAACCAAGTCATTCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTC 4500
+ + + + +
3' AGTACGGTAGGCATTCTACGAAAAGACACTGACCACCTCATGAGTTGGTTCAAGTAAGACTCTTATCACATACGCCGCTGGCTCAACGAGAACGGGCCGAG
beta-lactamase

XmnI
5' AATACGGGATAATACCGCGCCACATAGCAGAACTTTAAAAGTGCCTCATCATTGGAAAACGTTCTTCGGGGCGAAAACCTCAAGGATCTTACCCTGTTG 4600
+ + + + +
3' TTATGCCCTATTATGGCGCGGTGTATCGTCTTGAAATTTTACGAGTAGTAACCTTTTGAAGAAGCCCGCTTTTGAAGTTCTTAGAATGGCGACAAC
beta-lactamase

5' AGATCCAGTTCGATGTAACCCACTCGTGCACCCAACTGATCTTACGATCTTTTACTTTACCAGCGTTCCTGGGTGAGCAAAAACAGGAAGGCAAAAATG 4700
+ + + + +
3' TCTAGGTCAAGCTACATTGGGTGAGCACGTGGGTGACTAGAAGTCGTAGAAAATGAAAGTGGTCGCAAAGACCCTCGTTTGTCTTCCGTTTTAC
beta-lactamase

5' CCGCAAAAAGGGAATAAGGGCGACACGGAAATGTTGAATACTCATACTCTTCTTTTCAATATTATGAAGCATTATCAGGGTTATTGTCTCATGAG 4800
+ + + + +
3' GCGCTTTTTTCCCTTATTTCCCGCTGTGCCTTTACAACCTTATGAGTATGAGAAGGAAAAGTTATAATAACTTCGTAATAGTCCCAATAACAGAGTACTC
beta-lactamase

5' CGGATACATATTTGAATGTATTTAGAAAAATAAACAAATAGGGGTTCCGCGCACATTTCCCGAAAAGTGCCACCTGACGCGCCCTGTAGCGGCGCATTA 4900
+ + + + +
3' GCCTATGTATAAACTTACATAAATCTTTTTATTTGTTTATCCCAAGGCGGTGTAAAGGGCTTTTACGGTGGACTGCGCGGGACATCGCCGCGTAAT

5' AGCGCGCGGGTGTGGTGGTTACGCGCAGCGTGACCGCTACACTTGCCAGCGCCCTAGCGCCGCTCCTTTTCGCTTCTTCCCTTCTTTCGCCACGT 5000
+ + + + +
3' TCGCGCCGCCACACCACCAATGC CGCTGCACTGGCGATGTGAACGGTCGCGGGATCGCGGGCGAGGAAAGCGAAAGAAGGGAAGGAAAGAGCGGTGCA

5' TCGCCGGCTTTCCCGTCAAGCTCTAAATCGGGGGTCCCTTTAGGGTCCGATTTAGTGCCTTACGGCACCTCGACCCCAAAAACCTTGATTAGGGTGA 5100
+ + + + +
3' AGCGGCCGAAAGGGGAGTTGAGATTTAGCCCGGAGGAAATCCCAAGCTAAATCACGAAATGCGGTGGAGCTGGGGTTTTTTGAACTAATCCACT

Drall Alol' Alol
5' TGGTTCACGTAGTGGGCCATCGCCCTGATAGACGGTTTTTTCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTTGTTCAAAACCTGGAACA 5200
+ + + + +
3' ACCAAGTGCATCACCCGGTAGCGGGACTATCTGCCAAAAGCGGAAACTGCAACCTCAGGTGCAAGAAATTATCACCTGAGAACAAGGTTTGACCTTGT

5' AACTCAACCCTATCTCGGTCTATTCTTTTGATTTATAAGGGATTTTGCCGATTTCCGGCTATTGGTTAAAAAATGAGCTGATTTAACAAAATTTAACG 5300
+ + + + +
3' TGTGAGTTGGGATAGAGCCAGATAAGAAAACTAAATATTCCCTAAAACGGCTAAAGCCGGATAACCAATTTTTTACTCGACTAAATGTTTTTAAATTGC

5' CGAATTTTAAACAAAATATTAACGTTTACAATTTCCCATTCGCATTCAGGCTGCGCAACTGTTGGGAAGGGCGATCGGTGCGGGCTCTTTCGCTATTACG 5400
+ + + + +
3' GCTTAAAATTTGTTTTATAATTGCAAATGTTAAAGGGTAAGCGGTAAGTCCGACGCGTTGACAACCTTCCCGCTAGCCACGCCCGGAGAAGCGATAATGC

5' CCAGCCCAAGCTACCATGATAAGTAAGTAATATTAAGGTACGTGGAGTTTTTACTTGCTTTAAAAAACCTCCCACACCTCCCCCTGAACCTGAAACATAA 5500
+ + + + +
3' GGTCGGGTTTCGATGTTACTATTTCATTTCATTATAATTCCATGCACCTC AAAATGAACGAAATTTTTTGGAGGGTGTGGAGGGGACTTGGACTTTGTATT

5' AATGAATGCAATTGTTGTTGTTAACTTGTATTATGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTTACAAATAAAGCATTTTTTTCA 5600
+ + + + +
3' TTACTTACGTTAACACAACAATGAACAAAATAACGTCGAATATTACCAATGTTTATTTCGTTATCGTAGTGTAAAGTGTATTTCGTA AAAAAGT

5' CTGCATTCTAGTTGTGGTTTGTCCAAACTCATCAATGTATCTTATGGTACTGTAAGTACTGAGCTAACATAA 5669
+ + + + +
3' GACGTAAGATCAACACCAACAGGTTTGAGTAGTTACATAGAATACCATGACATTGACTCGATTGTATT