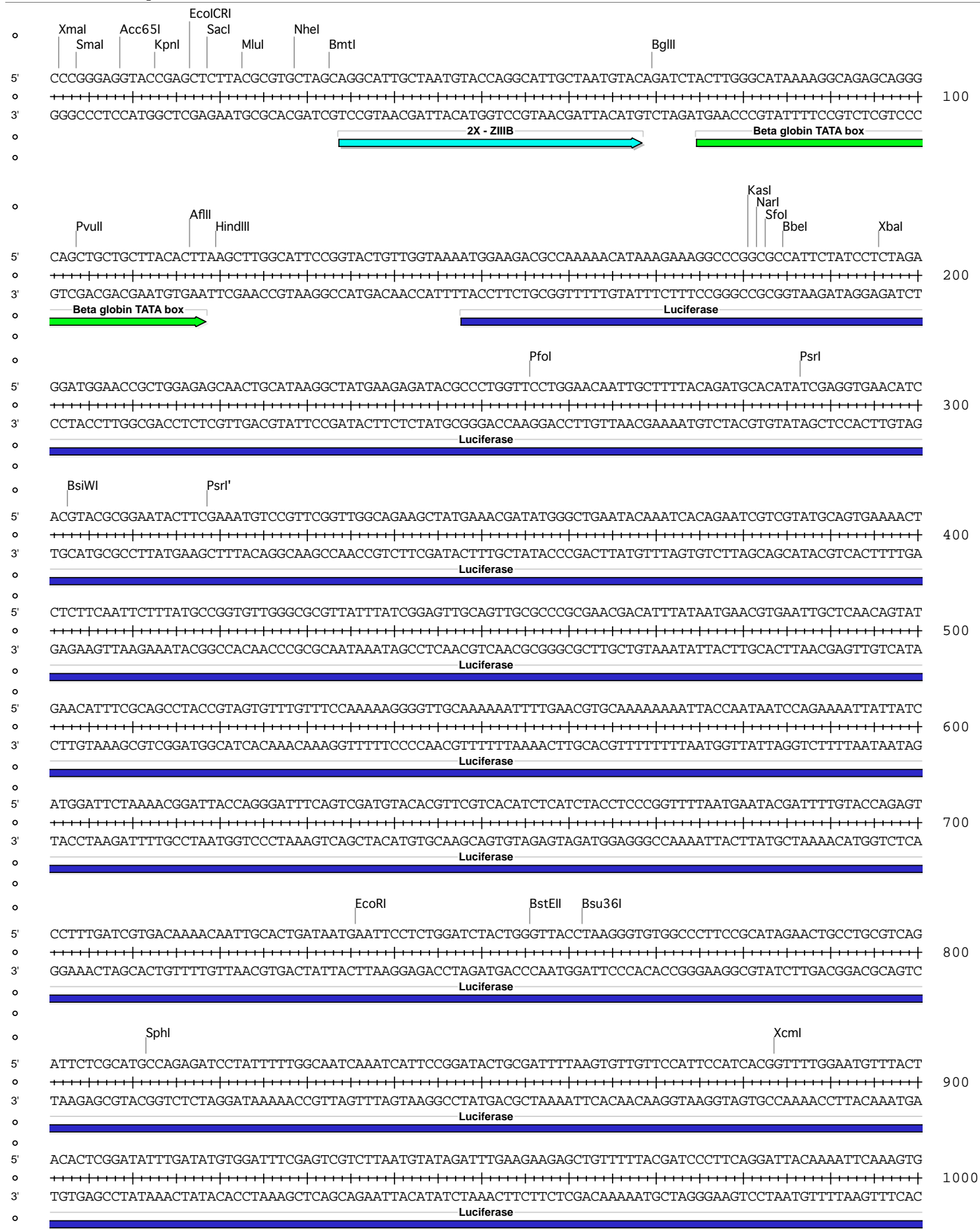


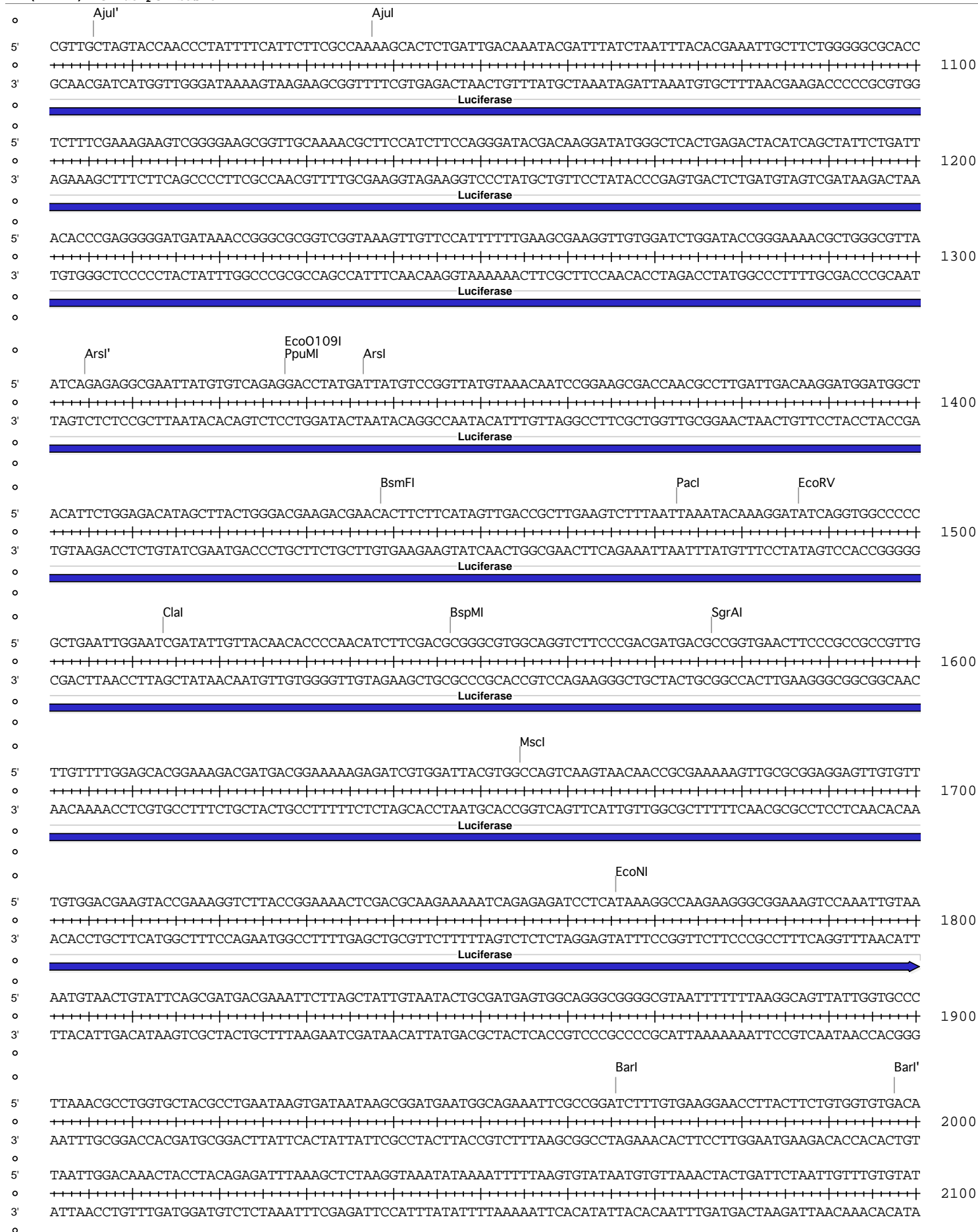


Absent Sites 0 AarI,AatII,AbSI,Agel,AleI,Apal,AscI,AsiSI,AvrII,BaeI,BaeI',BbvCI,BclI,BlpI,BmgBI,Bpu10I,BsmBI,BssHII,BstXI,BstZ17I,BtgI,CspCI,CspCI',EagI,FalI,Fall',FseI,FspAI,MauBI,MreI,NcoI,NdeI,NotI,NruI,Nsil,PasI,PmeI,PmlI,PspOMI,PspXI,PstI,RsrII,SacII,SanDI,SbfI,SexAI,SfiI,SgrDI,SnaBI,SpeI,SrfI,StuI,Swal,Tth111,XhoI,ZraI

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)
BstEII	1	(755) 756 (4914)
Bsu36I	1	(761) 762 (4908)
Clal	1	(1513) 1514 (4156)
DrallI	1	(5111) 5112 (558)
EcoCRI	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)
PsrI	1	(286) 287 (5383)
PsrI'	1	(318) 319 (5351)
PvuII	1	(103) 104 (5566)

SacI	1	(18) 19 (5651)
Sall	1	(2816) 2817 (2853)
Scal	1	(4439) 4440 (1230)
SfoI	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)





o  
5' TTTAGATTCCAACCTATGGAAGTGGAGCAGTGGTGGAAATGCCTTTAATGAGGAAAACCTGTTTTGCTCAGAAGAAATGCCATCTAGTGATGA 2200  
o  
3' AAATCTAAGGTTGGATACCTTGACTACTTACCCTCGTCCACACCTTACGGAAATTACTCCTTTTGGACAAAACGAGTCTTCTTTACGGTAGATCACTACT  
o  
o  
5' TGAGGCTACTGCTGACTCTCAACATTCTACTCCTCCAAAAAGAAGAGAAAGGTAGAAGACCCCAAGGACTTTCCTTCAGAATTGCTAAGTTTTTTGAGT 2300  
o  
3' ACTCCGATGACGACTGAGAGTTGTAAGATGAGGAGTTTTTTCTTCTCTTCCATCTTCTGGGGTTCCTGAAAGGAAGTCTTAACGATTCAAAAACTCA  
o  
o  
5' CATGCTGTGTTTAGTAATAGAAGTCTTGCTTGGCTTTGCTATTTACACCACAAAGGAAAAAGCTGCCTGCTATACAAGAAAATTATGGAAAAATATTCTG 2400  
o  
3' GTACGACACAAATCATTATCTTGAGAACGAACGAAACGATAAATGTGGTGTTCCTTTTCGACGTGACGATATGTTCTTTAATACCTTTTATAAGAC  
o  
5' TAACCTTTATAAGTAGGCATAACAGTTATAATCATAACTACTGTTTTTTCTTACTCCACACAGGCATAGAGTGTCTGCTATTAATAACTATGCTCAAAA 2500  
o  
3' ATTGAAATATTCATCCGTATTGTCAATATTAGTATTGTATGACAAAAAGAATGAGGTGTGTCCTATCTCACAGACGATAATTATTGATACGAGTTTT  
o  
o  
5' ATTGTGTACCTTTAGCTTTTTAATTTGTAAGGGGTTAATAAGGAATATTTGATGTATAGTGCCTTGACTAGAGATCATAATCAGCCATACCACATTGT 2600  
o  
3' TAACACATGGAAATCGAAAAATTAACATTTCCCAATTATTCTTATAAATACATATCACGGAACGATCTCTAGTATTAGTCGGTATGGTGTAAACA  
o  
o  
5' AGAGGTTTTACTTGCCTTAAAAAACCTCCACACCTCCCCCTGAACCTGAAACATAAAATGAATGCAATTGTTGTTGTTAACTTGTTTATTGCAGCTTAT 2700  
o  
3' TCTC AAAATGAACGAAATTTTGGAGGGTGTGGAGGGGACTTGGACTTTGTATTTACTTACGTTAACAACAACAATTGAACAAAATACGTCGAATA  
o  
o  
SV40 late polyA  
o  
5' AATGTTACAAATAAAGCAATAGCATCACAATTTACAAATAAAGCATTTTTTTCACTGCATTCTAGTTGTGGTTTTGTCCAAACTCATCAATGTATCTT 2800  
o  
3' TTACCAATGTTTATTTTCGTTATCGTAGTGTTTAAAGTGTATTATTTCGTAAAAAAGTGACGTAAGATCAACACCAAACAGGTTTGAGTAGTTACATAGAA  
o  
o  
SV40 late polyA  
o  
o  
o  
5' ATCATGTCTGGATCCGTCGACCGATGCCCTTGAGAGCCTTCAACCCAGTCAGCTCCTTCCGGTGGGCGGGGCATGACTATCGTCGCCGCACTTATGAC 2900  
o  
3' TAGTACAGACCTAGGCAGCTGGCTACGGGAACCTCGGAAGTTGGGTGAGTTCGAGGAAGGCCACCCGCGCCCGTACTGATAGCAGCGGCGTGAATACTG  
o  
o  
SV40 late polyA  
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o  
5' TGTCCTTTTATCATGCAACTCGTAGGACAGGTGCCGGCAGCGCTCTTCCGCTTCTCGCTCACTGACTCGCTGCGCTCGGTCGTTCCGGCTCGGGCGAGC 3000  
o  
3' ACAGAAGAAATAGTACGTTGAGCATCCTGTCCACGGCCGTCGCGAGAAGGCGAAGGAGCGAGTGACTGAGCGACGCGAGCCAGCAAGCCGACGCCGCTCG  
o  
o  
o  
5' GGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAATGTGAGCAAAGGCCAGCAAAGGCCAGGAAC 3100  
o  
3' CCATAGTCGAGTGAGTTTCCGCCATTATGCCAATAGGTGTCCTTAGTCCCTATTGCGTCTTCTTGTACTCGTTTTTCCGGTCTTTTTCCGGTCTCTTG  
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5' CGTAAAAAGGCCGCTTGGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAG 3200  
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3' GCATTTTTCCGGCGCAACGACCGCAAAAAGGTATCCGAGGCGGGGGACTGCTCGTAGTGTTTTAGCTGCGAGTTCAGTCTCCACCGCTTTGGGCTGTC  
o  
5' GACTATAAAGATAACGAGCGTTTCCCTTGAAGCTCCCTCGTGGCTCTCCTGTTCGGACCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTC 3300  
o  
3' CTGATATTTCTATGGTCCGCAAAGGGGGACCTTCGAGGGAGCACGCGAGAGGACAAGGCTGGGACGGCGAATGGCTATGGACAGCGGAAAGAGGGAAAG

2X (ZIIIB) BG-Luc pGL2basic

5' GGG AAGCGTGGCGCTTTCTCAATGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAG  
 3' CCCTTCGCACC CGAAAGAGTTACGAGTGCACATCCATAGAGTCAAGCCACATCCAGCAAGCGAGGTTGACCCGACACACGTGCTTGGGGGGCAAGTC

5' CCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGGACAGTATTTGGTATCTGCGCTCTGCTGAAGCC  
 3' GGGCTGGCGACCGGAATAGGCCATTGATAGCAGAACTCAGGTTGGGCCATTCTGTGCTGAATAGCGGTGACCGTCTGCGGTGACCATTGCTCTAATCGT

5' GAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGGACAGTATTTGGTATCTGCGCTCTGCTGAAGCC  
 3' CTCGCTCCATACATCCGCCACGATGTCTCAAGAACTTCAACCACCGATTGATGCCGATGTGATCTTCTGTCTATAAACCATAGACGCGAGACGACTTCGG

5' AGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGTATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGA  
 3' TCAATGGAAGCCTTTTCTCAACCATCGAGAACTAGGCCGTTTGTGGTGGCGACCATCGCCACCAAAAAACAAACGTTTCGTGCTCTAATGCGCGTCT

5' AAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGAAAACCTACGTTAAGGGATTTTGGTCATGAGATTATCAA  
 3' TTTTCTCCTAGAGTTCTTAGGAAACTAGAAAAGATGCCCGACTGCGAGTACCTTGTCTTTGAGTGCAATTCCTAAAACAGTACTCTAATAGTT

5' AAAGGATCTTACCTAGATCCTTTTAAATTAATAAATGAAGTTTTAAATCAATCTAAAGTATATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAAT  
 3' TTTCTAGAAAGTGGATCTAGGAAAATTAATTTTACTTCAAATTTAGTTAGATTTTCATATATACTCATTGAAACCAGACTGTCAATGGTTACGAATTA

**beta-lactamase**

AhdI

5' CAGTGAGGCACCTATCTCAGCGATCTGTCTATTTGTTTCATCCATAGTTGCCTGACTCCCCGTCGTGTAGATAACTACGATACGGGAGGGCTTACCATCT  
 3' GTCACCTCCGTGGATAGAGTTCGTAGACAGATAAAGCAAGTAGGTATCAACGGACTGAGGGGACGACATCTATGATGCTATGCCCTCCCGAATGGTAGA

**beta-lactamase**

BsaI

5' GGCCCCAGTGTGCAATGATACCGCGAGACCCACGCTCACC GGCTCCAGATTTATCAGCAATAAACCAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTC  
 3' CCGGGTACGACGTTACTATGGCGCTCTGGGTGCGAGTGGCCGAGGTC TAAATAGTCGTTATTTGGTTCGGTCCGCTTCCCGCTCGCTCTTACCAG

**beta-lactamase**

NmeAIII

5' CTGCAACTTTATCCGCTCCATCCAGTCTATTAATTGTTGCCGGAAGCTAGAGTAAGTAGTTCCGCAAGTTAATAGTTTGGCAACGTTGTTGCCATTC  
 3' GACGTTGAAATAGCGGAGGTAGGTGAGATAATTAACAACGGCCCTTCGATCTCATTATCAAGCGGTCAATTAACAACGCGTTGCAACAACGGTAAACG

**beta-lactamase**

5' TACAGGCATCGTGGTGTACGCTCGTCTTGGTATGGCTTCAITTCAGCTCCGGTTCCTCAACGATCAAGGCGAGTTACATGATCCCCATGTTGTGCAAA  
 3' ATGTCCGTAGCACCACAGTGCAGCAGCAAACCATACCGAAGTAAGTTCGAGGCCAAGGGTGTAGTTCGCTCAATGTACTAGGGGTACAACACGTTT

**beta-lactamase**

5' AAAGCGGTTAGCTCCTTCGGTCTCCGATCGTTGTGAGAAGTAAGTTGGCCGAGTGTATCACTCATGGTTATGGCAGCACTGCATAATCTCTTACTG  
 3' TTTCCGAATCGAGGAAGCCAGGAGGCTAGCAACAGTCTTCAATCAACCGCGTCACAATAGTGAGTACCAATACCGTCTGACGTATTAAGAGAATGAC

**beta-lactamase**

ScaI

5' TCATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGGTACTCAACCAAGTCACTTCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTC  
 3' AGTACGGTAGGCATTTACGAAAAGACTGACCACTCATGAGTTGGTTCAGTAAGACTCTTATCACATACGCCGCTGGCTCAACGAGAACGGGCCGACG

**beta-lactamase**

o  
5' AATACGGGATAATACCGGCCACATAGCAGAACTTTAAAAGTGCTCATCATTTGAAAAACGTTCTTCGGGGCGAAAACTCTCAAGGATCTTACCGCTGTTG  
o ++++++ 4600  
3' TTATGCCCTATTATGGCGCGGTGTATCGTCTTGAAATTTTCACGAGTAGTAACCTTTTGCAAGAAGCCCGCTTTTGAGAGTTCCTAGAATGGCGACAAC  
o  
o **beta-lactamase**  
o  
5' AGATCCAGTTCGATGTAACCCACTCGTGCACCCAACCTGATCTTCAGCATCTTTACTTTCCAGCAGCTTTCTGGGTGAGCAAAAACAGGAAGGCAAAATG  
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3' TCTAGGTCAAGCTACATTTGGGTGAGCACGTGGGTGACTAGAAAGTCGTAGAAAATGAAAGTGGTCGCAAGACCCTACTCGTTTTTGTCTTCCGTTTTAC  
o  
o **beta-lactamase**  
o  
5' CCGCAAAAAGGGAATAAGGGCGACACGGAAATGTTGAATACTCATACTCTTCTTTTTCAATATTATTGAAGCATTATCAGGGTTATTGTCTCATGAG  
o ++++++ 4800  
3' GGCGTTTTTCCCTTATTCGCCGTGTGCCTTTACAACCTATGAGTATGAGAAGGAAAAGTTATAATAACTTCGTAAATAGTCCAATAACAGAGTACTC  
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o **beta-lactamase**  
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5' CGGATACATATTTGAATGTATTTAGAAAAATAACAAATAGGGGTTCCGCGCACATTTCCCGAAAAGTGCCACCTGACGCGCCCTGTAGCGGCGCATT  
o ++++++ 4900  
3' GCCATGTATAAACTTACATAAATCTTTTATTGTTTATCCCAAGGCGGTGTAAGGGGCTTTTACGGTGGACTGCGGGGACATCGCCGCGTAAT  
o  
5' AGCGCGGGGGTGTGGTGGTTACGCGCAGCGTGACCGCTACACTTGCCAGCGCCCTAGCGCCGCTCCTTTTCGTTTCTTCCCTTCTTTCTCGCCACGT  
o ++++++ 5000  
3' TCGCCCGCCACACCACCAATGCGCGTGCACCTGGCGATGTGAACGGTCCGCGGATCGCGGGCAGGAAAGCGAAAGAAGGAAAGAGCGGTGCA  
o  
5' TCGCCGGCTTTCCCGTCAAGCTCTAAATCGGGGGCTCCCTTTAGGGTCCGATTTAGTGCCTTACGGCACCTCGACCCAAAAAACTTGATTAGGGTGA  
o ++++++ 5100  
3' AGCGCCGAAAGGGGAGTTCGAGATTTAGCCCGGAGGAAATCCCAAGGCTAAATCACGAAATGCCGTGGAGCTGGGGTTTTTTGAACTAATCCCACT  
o  
o  
o Drall | Alol' | Alol  
5' TGGTTCACGTAGTGGGCCATCGCCCTGATAGACGGTTTTTCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTTGTTCAAACTGGAACA  
o ++++++ 5200  
3' ACCAAGTGCATCACCCGGTAGCGGACTATCTGCCAAAAGCGGGAAACTGCAACCTCAGGTGCAAGAAATTATCACCTGAGAACAAGGTTTGACCTTGT  
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5' ACACCAACCCTATCTCGGTCATTCTTTGATTTATAAGGGATTTGCGGATTTGCGCCTATTGGTTAAAAAATGAGCTGATTTAACAAAAATTTAACG  
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3' TGTGAGTTGGGATAGACCGAGATAAGAAAATAAATATCCCTAAAACGGCTAAAGCCGATAACCAATTTTTACTCGACTAAATGTTTTTAAATTGC  
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5' CGAATTTTAACAAAATATTAACGTTTACAATTTCCCATTCGCCATTCAGGCTGCGCAACTGTTGGGAAGGGCGATCGGTGCGGGCCTCTTCGCTATTACG  
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3' GCTTAAAATGTTTTATAATTGCAAATGTTAAAGGGTAAGCGGTAAGTCCGACGCGTTGACAACCTTCCCGCTAGCCACGCCCGGAGAAGCGATAATGC  
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5' CCAGCCCAAGCTACCATGATAAGTAAGTAATATTAAGGTACGTGGAGGTTTTACTTGTCTTTAAAAAACCCTCCACACCTCCCCCTGAACCTGAAACATAA  
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3' GGTCCGGTTCGATGGTACTATTCAATCATTATAATTCCATGCACCTCCAAAATGAACGAAATTTTTGGAGGGTGTGGAGGGGACTTGGACTTTGTATT  
o  
5' AATGAATGCAATTGTTGTTGTTAACTTGTATTATGCAGCTTATAATGGTTACAAAATAAGCAATAGCATCACAAATTTACAAAATAAGCATTTTTTTCA  
o ++++++ 5600  
3' TTACTTACGTTAACAAACAATTTGAACAAATAACGTGCAATAATTACCAATGTTTATTTTCGTTATCGTAGTGTAAAGTGTATTTCGTAAAAAAGT  
o  
5' CTGCATTCTAGTTGTGGTTTGTCCAAACTCATCAATGTATCTTATGGTACTGTAACCTGAGCTAACATAA  
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3' GACGTAAGATCAACACCAACAGGTTTGAGTAGTTACATAGAATACCATGACATTGACTCGATTGTATT