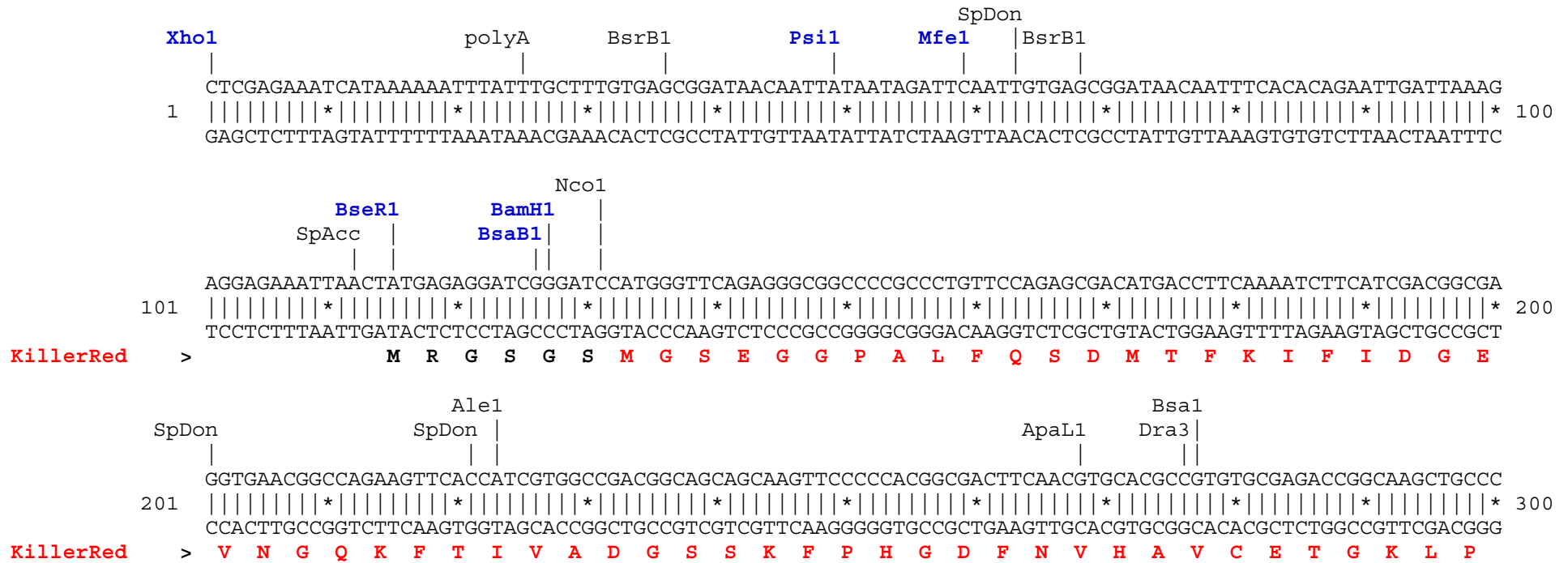


**pKillerRed-B vector** restriction map

The data has not been verified by restriction digestion with each enzyme listed and does not take into account possible methylation sites. Enzymes that recognize unambiguous sequences less than 6 basepairs long are not included – for the more complete enzyme list please refer to the Table of restriction sites.

Unique sites shown in bold blue. The location given specifies the 3' end of the cut DNA (the base to the left of the cut site). Amino acids coded by vector's backbone sequence are shown in black.



```

PflM1
|
ATGAGCTGGAAGCCCATCTGCCACCTGATCCAGTACGGCGAGCCCTTCTTCGCCCCTACCCCGACGGCATCAGCCATTTTCGCCCAGGAGTGCTTCCCCG
301 |||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||* 400
TACTCGACCTTCGGGTAGACGGTGGACTAGGTCATGCCGCTCGGGAAGAAGCGGGCGATGGGGCTGCCGTAGTCGGTAAAGCGGGTCTCACGAAGGGGC
KillerRed > M S W K P I C H L I Q Y G E P F F A R Y P D G I S H F A Q E C F P E

BspM1
BfuA1
Aar1
Bpu10
|
AGGGCCTGAGCATCGACCGCACCGTGCGCTTCGAGAACGACGGCACCATGACCAGCCACcACACCTACGAGCTGGACGACACCTGCGTGGTGAGCCGCAT
401 |||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||* 500
TCCCGACTCGTAGCTGGCGTGGCACGCGAAGCTCTTGCTGCCGTGGTACTGGTTCGGTgTGTGGATGCTCGACCTGCTGTGGACGCACCACTCGGCGTA
KillerRed > G L S I D R T V R F E N D G T M T S H H T Y E L D D T C V V S R I

Chi
PflM1
|
Pvu2
|
Bsa1
|
BspLU
|
CACCGTGAAGTGCAGCGGCTTCAGCCCCGACGGCCCCATCATGCGCGACCAGCTGGTGGACATCCTGCCCAACGAGACCCACATGTTCCCCCACGGCCCC
501 |||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||* 600
GTGGCACTTGACGCTGCCGAAGGTCTGGGCTGCCGGGGTAGTACGCGCTGGTTCGACCACCTGTAGGACGGGTTGCTCTGGGTGTACAAGGGGGTGCCGGGG
KillerRed > T V N C D G F Q P D G P I M R D Q L V D I L P N E T H M F P H G P

Pvu2
|
SpDon
|
AACGCCGTGCGCCAGCTGGCCTTCATCGGCTTCACCACCGCCGACGGCGGCCTGATGATGGGCCACTTCGACAGCAAGATGACCTTCAACGGCAGCCGCG
601 |||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||* 700
TTGCGGCACGCGGTTCGACCGGAAGTAGCCGAAGTGGTGGCGGCTGCCGCCGGACTACTACCCGGTGAAGCTGTGCTTCTACTGGAAGTTGCCGTTCGGCGC
KillerRed > N A V R Q L A F I G F T T A D G G L M M G H F D S K M T F N G S R A

Dra3
|
Pml1
|
CCATCGAGATCCCCGGCCACACTTCGTGACCATCATCACCAAGCAGATGAGGGACACCAGCGACAAGCGCGACCACGTGTGCCAGCGCGAGGTGGCCTA
701 |||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||* 800
GGTAGTCTAGGGGCCGGGTGTGAAGCACTGGTAGTAGTGGTTCGTCTACTCCCTGTGGTTCGCTGTTTCGCGCTGGTGCACACGGTTCGCGCTCCACCGGAT
KillerRed > I E I P G P H F V T I I T K Q M R D T S D K R D H V C Q R E V A Y

```

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      Dra3              Hind3              Bln1
      |                 |                 |
CGCCACAGCGTGCCCGCATCACCAGCGCCATCGGTAGCGACGAGGATTGAAAGCTTAATTAGCTGAGCTTGGACTCCTGTTGATAGATCCAGTAATGA
801  |||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||* 900
GCGGGTGTTCGCACGGGGCGTAGTGGTTCGCGGTAGCCATCGCTGCTCCTAACTTTTCGAATTAATCGACTCGAACCTGAGGACAACCTATCTAGGTCATTACT
KillerRed > A H S V P R I T S A I G S D E D *

      polyA              Nhe1              Bpu10
      |                 |                 |
      SpAcc|
CCTCAGAACTCCATCTGGATTTGTTTTCAGAACGCTCGGTTGCCGCCGGGCGTTTTTTTATTGGTGAGAATCCAAGCTAGCTTGGCGAGATTTTCAGGAGCTA
901  |||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||* 1000
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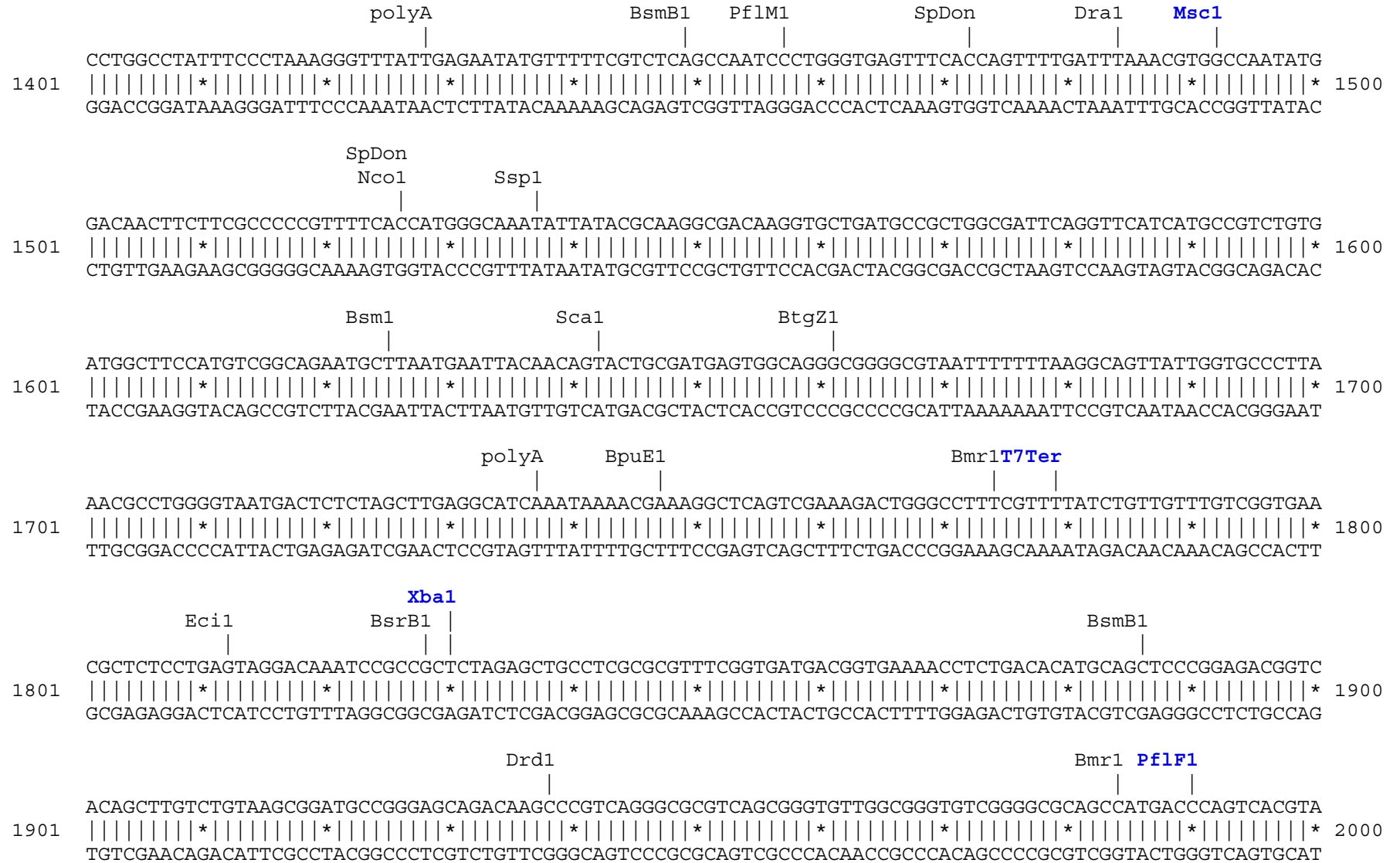
AGGAAGCTAAAAATGGAGAAAAAAATCACTGGATATACCACCGTTGATATATCCCAATGGCATCGTAAAGAACATTTTGAGGCATTTTCAGTCAGTTGCTCA
1001 |||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||* 1100
TCCTTCGATTTTACCTCTTTTTTTTAGTGACCTATATGGTGGCAACTATATAGGGTTACCGTAGCATTTCCTTGTA AAACTCCGTAAAGTCAGTCAACGAGT

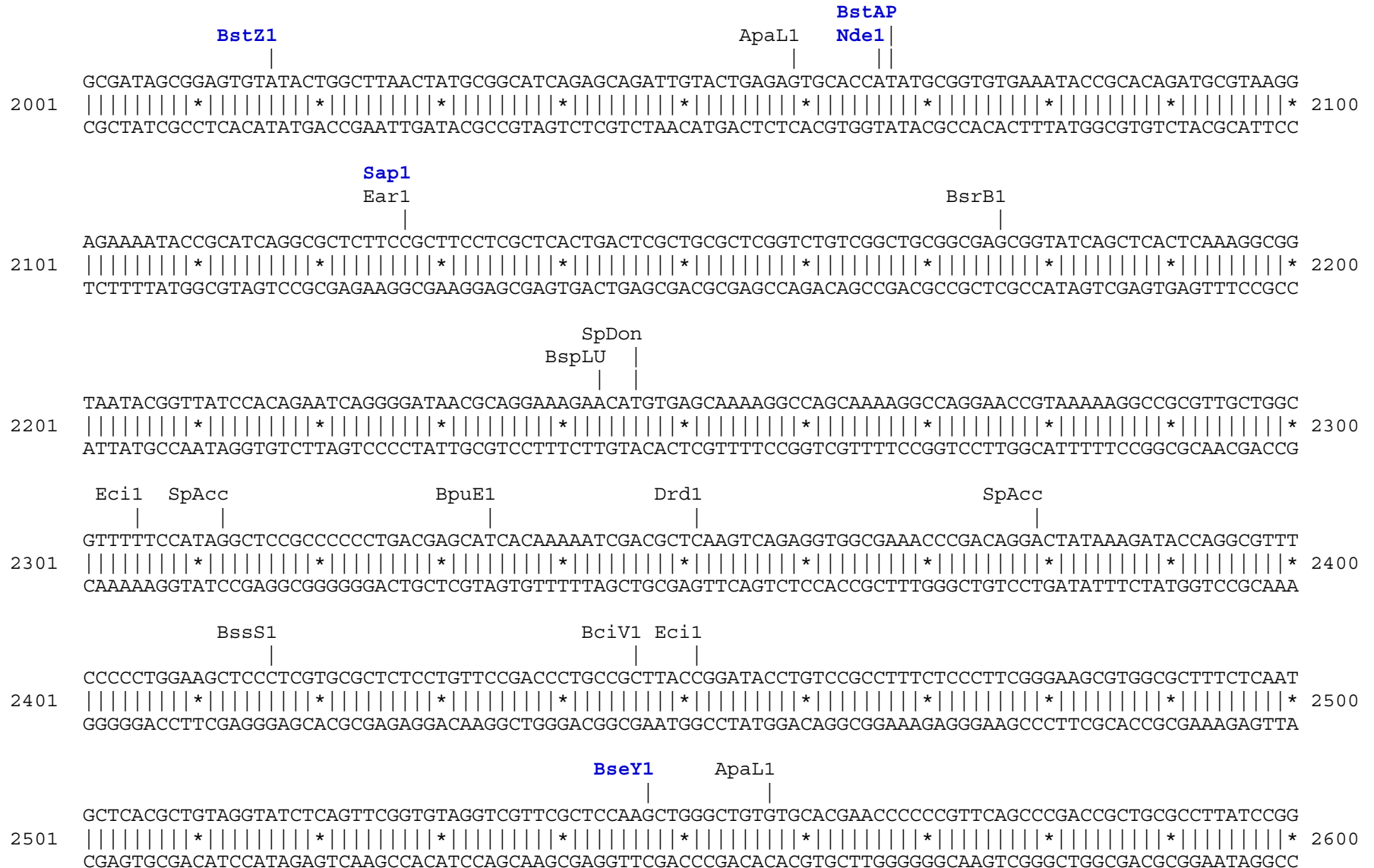
      Pvu2              Dra1              SpDon
      |                 |                 |
      polyA|
ATGTACCTATAACCAGACCGTTCAGCTGGATATTACGGCCTTTTTTAAAGACCGTAAAGAAAAATAAGCACAAGTTTTTATCCGGCCTTTATTACATTCTT
1101 |||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||* 1200
TACATGGATATTGGTCTGGCAAGTCGACCTATAATGCCGAAAAATTTCTGGCATTTCCTTTTTATTTCGTGTTCAAAATAGGCCGGAATAAGTGTAAGAA

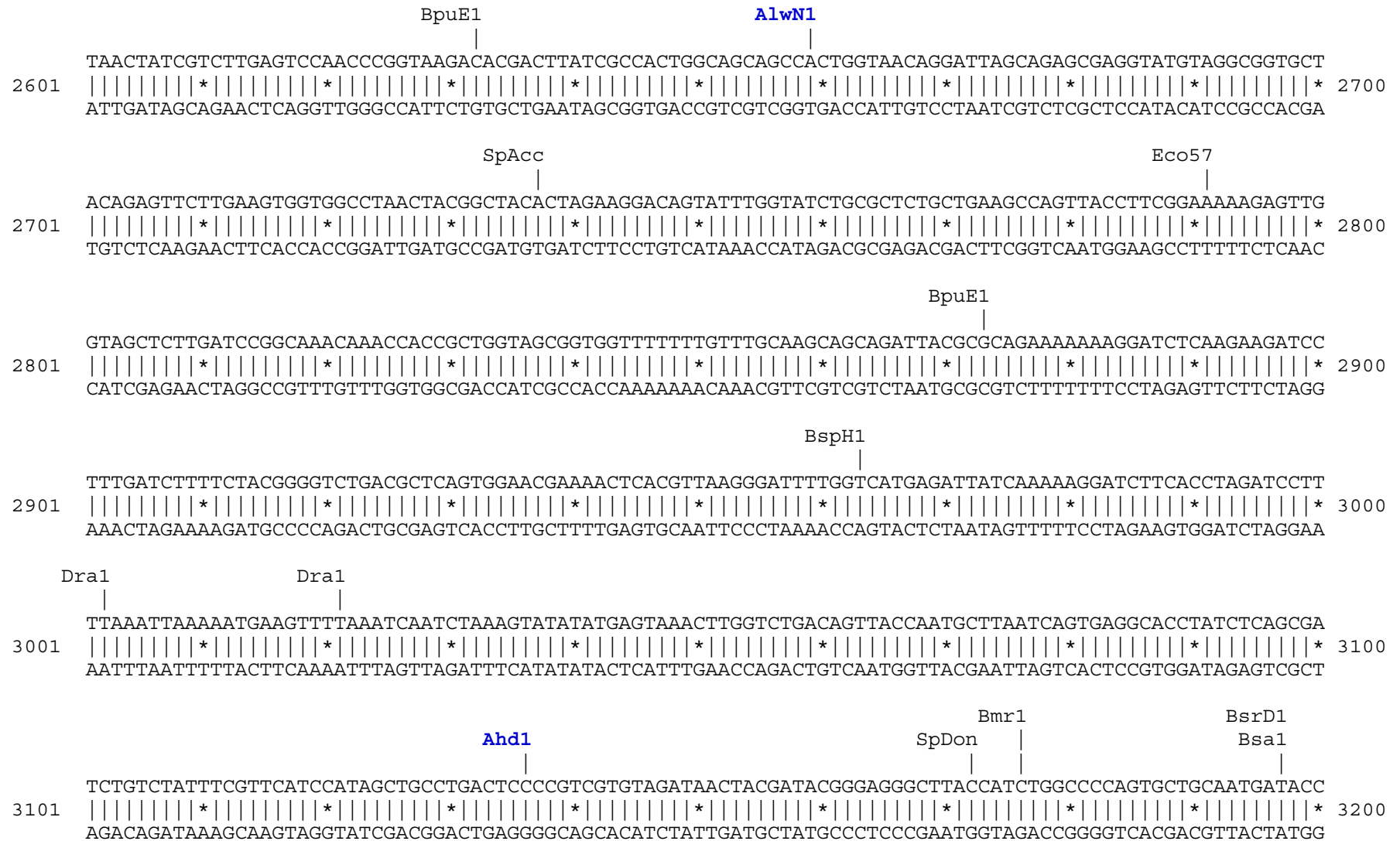
      BspE1
      |
      Bsm1|              BsrD1|
GCCCCCTGATGAATGCTCATCCGGAATTTTCGTATGGCAATGAAAGACGGTGAGCTGGTGATATGGGATAGTGTTACCCCTTGTTACACCGTTTTCCATG
1201 |||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||* 1300
CGGGCGGACTACTTACGAGTAGGCCTTAAAGCATACCGTTACTTTCTGCCACTCGACCACTATAACCTATCACAAGTGGGAACAATGTGGCAAAAGGTAC

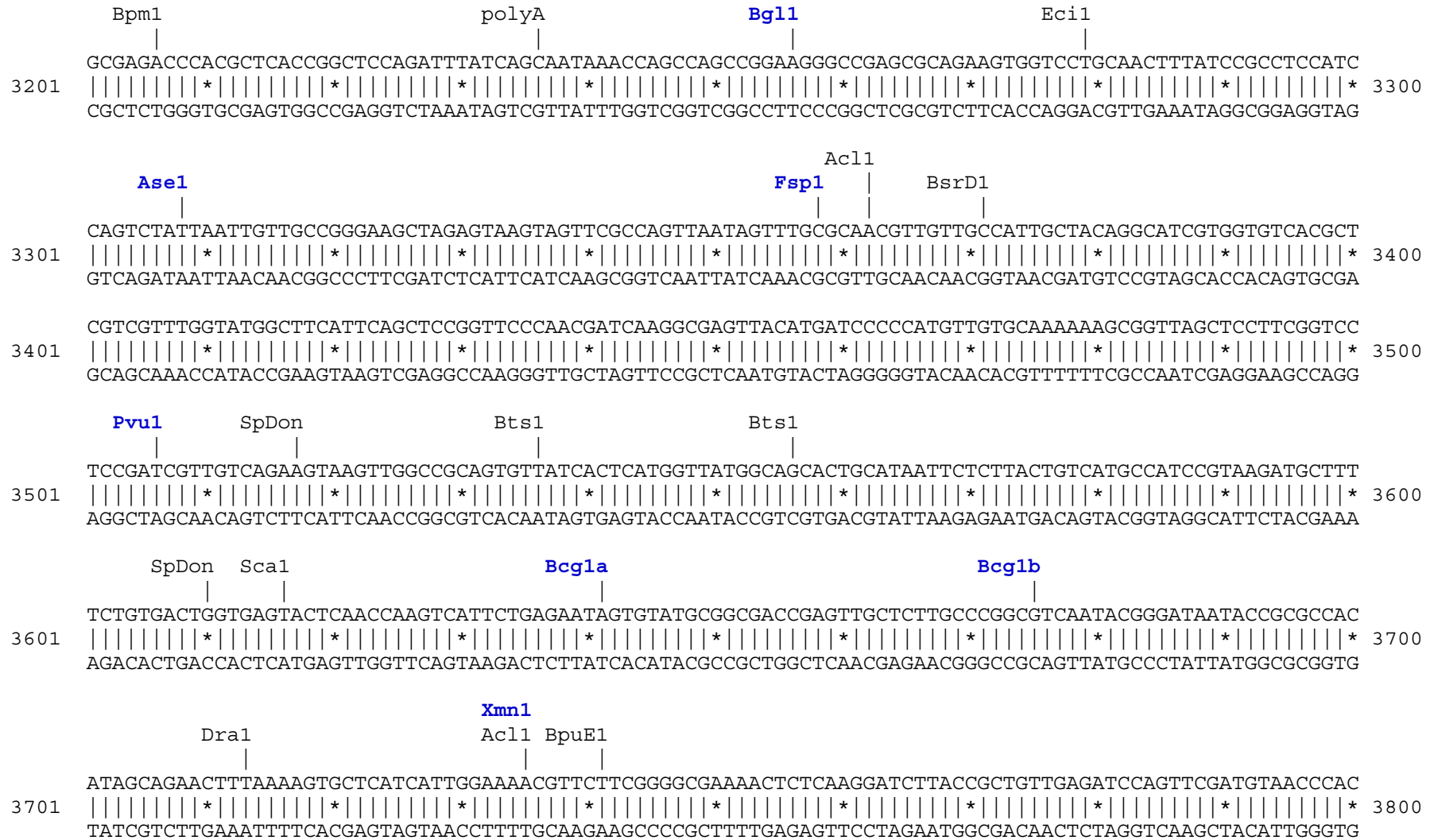
      BtgZ1      Acl1              Bpm1
      |         |                 |
AGCAAAC TGAACGTTTTTCATCGCTCTGGAGTGAATACCACGACGATTTCCGGCAGTTTCTACACATATATTTCGCAAGATGTGGCGTGTACGGTGAAAA
1301 |||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||*|||||* 1400
TCGTTTGACTTTGCAAAAGTAGCGAGACCTCACTTATGGTGTCTGCTAAAGGCCGTCAAAGATGTGTATATAAGCGTTCTACACCGCACAATGCCACTTTT

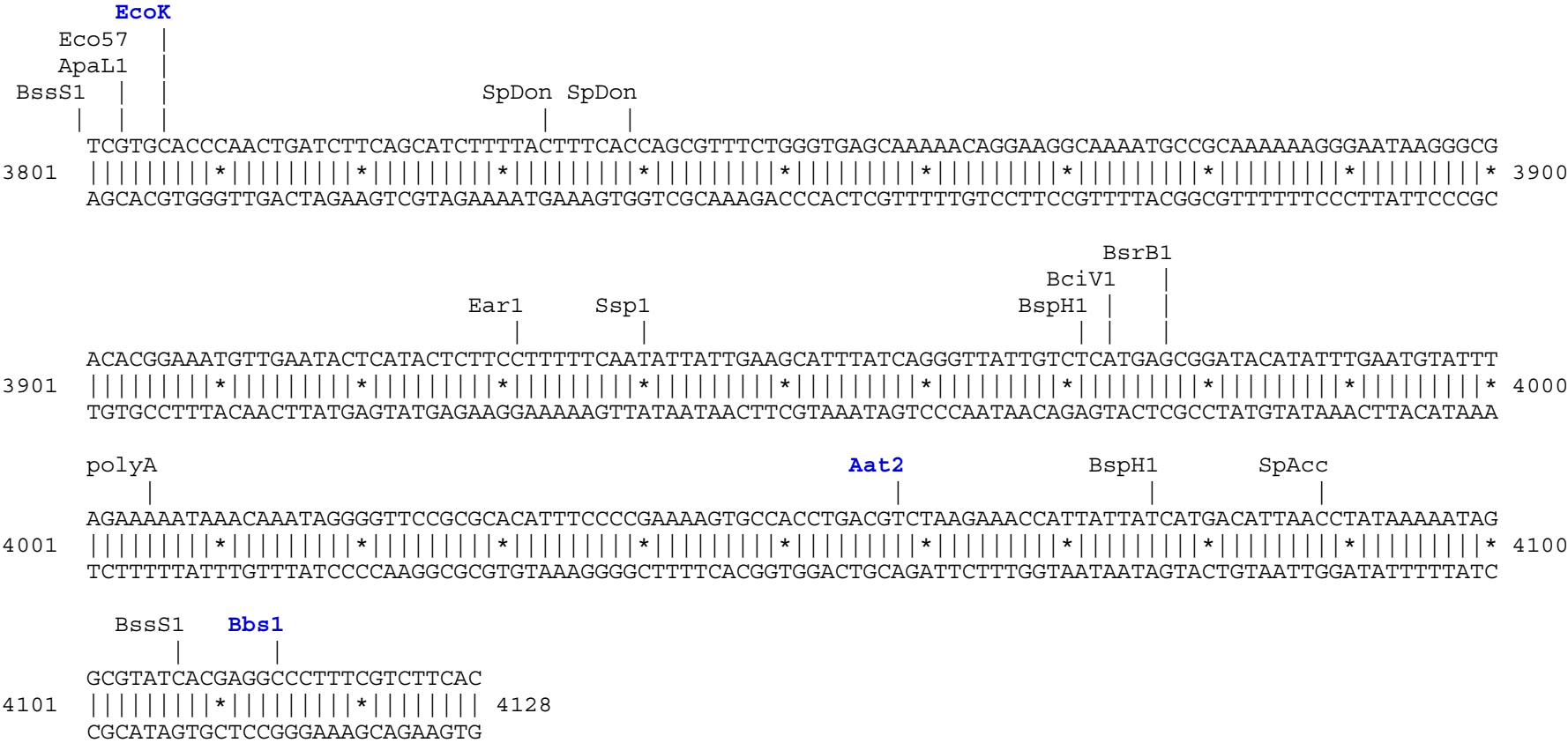
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Found:

|             |              |             |             |              |              |              |              |              |              |              |              |              |              |
|-------------|--------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Aar1</b> | <b>Aat2</b>  | Ac11        | <b>Ahd1</b> | Ale1         | <b>AlwN1</b> | ApaL1        | <b>Ase1</b>  | <b>BamH1</b> | <b>Bbs1</b>  | <b>Bcg1a</b> | <b>Bcg1b</b> | BciV1        | <b>BfuA1</b> |
| <b>Bgl1</b> | <b>Blp1</b>  | Bmr1        | Bpm1        | Bpu10        | BpuE1        | Bsa1         | <b>BsaB1</b> | <b>BseR1</b> | <b>BseY1</b> | Bsm1         | BsmB1        | <b>BspE1</b> | BspH1        |
| BspLU       | <b>BspM1</b> | BsrB1       | BsrD1       | BssS1        | <b>BstAP</b> | <b>BstZ1</b> | BtgZ1        | Bts1         | <b>_Chi</b>  | Dra1         | Dra3         | Drd1         | Ear1         |
| Eci1        | Eco57        | <b>EcoK</b> | <b>Fsp1</b> | <b>Hind3</b> | <b>Mfe1</b>  | <b>Msc1</b>  | Nco1         | <b>Nde1</b>  | <b>Nhe1</b>  | <b>PflF1</b> | PflM1        | <b>Pml1</b>  | polyA        |
| <b>Psi1</b> | <b>Pvu1</b>  | Pvu2        | <b>Sap1</b> | Sca1         | SpAcc        | SpDon        | Ssp1         | <b>T7Ter</b> | <b>Xba1</b>  | <b>Xho1</b>  | <b>Xmn1</b>  |              |              |

Unique:

|              |              |              |              |              |              |             |              |              |              |             |             |              |              |
|--------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|-------------|-------------|--------------|--------------|
| <b>Aar1</b>  | <b>Aat2</b>  | <b>Ahd1</b>  | <b>AlwN1</b> | <b>Ase1</b>  | <b>BamH1</b> | <b>Bbs1</b> | <b>Bcg1a</b> | <b>Bcg1b</b> | <b>BfuA1</b> | <b>Bgl1</b> | <b>Blp1</b> | <b>BsaB1</b> | <b>BseR1</b> |
| <b>BseY1</b> | <b>BspE1</b> | <b>BspM1</b> | <b>BstAP</b> | <b>BstZ1</b> | <b>_Chi</b>  | <b>EcoK</b> | <b>Fsp1</b>  | <b>Hind3</b> | <b>Mfe1</b>  | <b>Msc1</b> | <b>Nde1</b> | <b>Nhe1</b>  | <b>PflF1</b> |
| <b>Pml1</b>  | <b>Psi1</b>  | <b>Pvu1</b>  | <b>Sap1</b>  | <b>T7Ter</b> | <b>Xba1</b>  | <b>Xho1</b> | <b>Xmn1</b>  |              |              |             |             |              |              |

Not found:

|       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Acc65 | Afe1  | Afl2  | Age1  | Apa1  | Asc1  | AsiS1 | Avr2  | Baela | Baelb | BbvC1 | Bcl1  | BfrB1 | Bgl2  |
| BmgB1 | BsaXa | BsaXb | Bsg1  | BsiW1 | BsrG1 | BssH2 | BstB1 | BstE2 | BstX1 | Bsu36 | Cla1  | Eag1  | EcoN1 |
| EcoR1 | EcoRV | ScFRT | Fse1  | FspA1 | Hpa1  | I_Ceu | Kas1  | Kpn1  | loxP  | Mlu1  | Nae1  | Nar1  | NgoM4 |
| Not1  | Nru1  | Nsi1  | Pac1  | Pme1  | PshA1 | PspOM | Pst1  | Rsr2  | Sac1  | Sac2  | Sal1  | SanD1 | Sbf1  |
| SexA1 | Sfi1  | Sgf1  | SgrA1 | Sma1  | SnaB1 | Spe1  | Sph1  | Srf1  | Stu1  | Swa1  | T3RNA | T7RNA | PISce |
| Xcm1  |       |       |       |       |       |       |       |       |       |       |       |       |       |

Excluded by site complexity:

|       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Acc1  | Aci1  | Afl3  | Alu1  | Alw1  | Apo1  | Ava1  | Ava2  | Ban1  | Ban2  | Bbv1  | BceA1 | Bfa1  | Bme15 |
| BsaA1 | BsaH1 | BsaJ1 | BsaW1 | BseM2 | BsiE1 | BsiH1 | Bsl1  | BsmA1 | BsmF1 | Bsp12 | BspCa | BspCb | Bsr1  |
| BsrF1 | BssK1 | BstF5 | BstN1 | BstU1 | BstY1 | Btg1  | Cac8  | CviJ1 | Dde1  | Eae1  | EcoO1 | Fau1  | Fnu4H |
| Fok1  | Hae2  | Hae3  | Hga1  | Hha1  | Hinc2 | Hinf1 | HinP1 | Hpa2  | Hph1  | Hpy99 | Hpy1  | Hpy3  | HpyC3 |
| HpyC4 | HpyC5 | Mae3  | Mbo2  | Mnl1  | Mse1  | Msl1  | MspA1 | Mwo1  | Nci1  | Nla3  | Nla4  | Nsp1  | Ple1  |
| PpuM1 | Rsa1  | Sau3A | Sau96 | SfaN1 | Sfc1  | Sml1  | Sty1  | Taq1  | Tat1  | Tfi1  | Tse1  | Tsp45 | Tsp50 |
| TspR1 |       |       |       |       |       |       |       |       |       |       |       |       |       |