



PvuI (7)
SgfI (6) 1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA MfeI (82)

101 GAGAAGGTGGCGCGGGTAAACTGGGAAAGTGATGTCGTGTAAGTGGTCCGCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACGCGCCCGCCCTACCTGAGGGCC

301 GCCATCCACGCGGGTTGAGTCGCGTTTCTGCCGCCTCCCGCCTGTGGTGCTCTGAAGTGCCTCCGCGCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTCGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

KasI (535) **AgeI (552)** **BspHI (560)**
501 TCTGTTCTGCGCGGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACGGTCAATCATGAATCAACGAAGGAGTGAGTCAAGGCCCGGGAACCA

601 CAGACTCCAAGCTACGCAGAGCCCGGGAAGGGGATTCCGGAGGGCGGGCCCTTTCCGGAAGCGCCCGGGGGCGGGGAGGGGGCGGGCCATC
13▶ R L Q A Y A E P G K G D S G G A G P L S G S A R R R G R G G G G A I

Eco47III (798)
701 CGCGTGAGGCGACCTGTTGGTCCGGAGGGGGCGGGGAGGAGGAGGCCGCTTGGCGGTTCCGGTCCCCACAGTAACCGCTGGTGGACCTGGCCAG
47▶ R V R R P C W S G G A G R G G G P A W A V R L P T V T A G W T W P

BssHIII (822) **SacII (865)** **KasI (875)**
801 CGTCCGAACCTTGTCTCGTCGCGCCGCCCTCGGAGCCACAGCCCGGAAGGAGGCCCGCGGGCCCGCTCTGCCAAGCGGACCC
80▶ A L R T L S S L R A G P S E P H S P G R R P P R A G R P L C Q A D P

BamHI (936) **EagI (958)** **SacII (971)**
901 GCAACCCGAAAGGCGGCGCGGAGCCTGGAGCCGGATCCTGCTCAGACCGGGCCCGCCGGCCAGAGCCGCGGGCATGTCCGAGGCGCGGAAGGGG
113▶ Q P G K A A R R S L E P D P A Q T G R P R P A R A A G M S E A R K G

XcmI (1020)
1001 CCGGACGAGGCGGAGGAGCCAGTACGACTCTGGCATTGAGTCTCTGCGCTCTCTGCGCTCCCTACCCGAGTCCACCTCGGCTCCAGCTCCGGGCCCT
147▶ P D E A E E S Q Y D S G I E S L R S L R S L P E S T S A P A S G P

SmaI (1134)
1101 CGGACGGCAGCCCCAGCCCTGCACCCATCCTCCGGACCCGTC AAGGAACACAGGAGAAGGAGACGCGGATGGGAGCGGGCTGATTCCACCTATGG
180▶ S D G S P Q P C T H P P G P V K E P Q E K E D A D G E R A D S T Y G

Eco72I (1279) **BbrPI (1279)**
1201 CTCCTCTCGCTACCTACACCTGTCTTGTGGGGGCCCCGAGGCTGAGGACCCGCCCCACGCTGCCACTCCCCACGTGGGGGCGCTGAGCCCT
213▶ S S S L T Y T L S L L G G P E A E D P A P R L P L P H V G A L S P

BspHI (1365)
1301 CAGCAGCTGGAAGCACTCACTTACATCTCCGAGGACGGAGACAGCTGGTCCACCTGGCAGTGATTTCATGAGGCCACGCGGTGCTGCTGTTGCCTGG
247▶ Q Q L E A L T Y I S E D G D T L V H L A V I H E A P A V L L C C L

BsrGI (1464)
1401 CTTTGTGCCCCAGGAGTCTGGACATCAAATAACCTTTACCAGACAGCACTCCATCTGGCTGTACATCTGGACCAACGGGCGCAGTTCGGGCACT
280▶ A L L P Q E V L D I Q N N L Y Q T A L H L A V H L D Q P G A V R A L
1501 GGTGCTGAAGGGGCGGCGGCGGACTACAGGACCGGCTGGTACACCTTTCATGTGGCTGCCAGCGCCAGCACTGGCCTGTGCCCGCTGCTGCTG
313▶ V L K G A S R A L Q D R H G D T A L H V A C Q R Q H L A C A R C L
1601 CTGGAAGGGCGGCGGAGCCAGGAGGAGGAACTCTACTCTGACCTCCAGCTGCAAAACTGGCAAGGTCTGGCTTGTCTCCACATTGCCACCTTC
347▶ L E G R P E P G R G T S H S L D L Q L Q N W Q G L A C L H I A T L

Eco47III (1779)
1701 AGAAGAACCAACCACTCATGGAATTGCTGCTTCGGAATGGAGCTGACATTGATGTGCAGGAGGGCACCAGTGGTAAGACAGCGCTGCACCTGGCTGTGGA
380▶ Q K N Q P L M E L L L R N G A D I D V Q E G T S G K T A L H L A V E

SphI (1859) **ApaLI (1872)**
1801 AACCAAGAGCGGGGCTGGTACAGTTCCTGCTCCAGGCTGGTCCCAGGTAGATGCCCGCATGCTGAACGGGTGCACACCCCTGCACCTGGCAGCTGGC
413▶ T Q E R G L V Q F L L Q A G A Q V D A R M L N G C T P L H L A A G

DraIII (1923)
1901 CGGGTCTCATGGGCATCTCATCCACTCTGTGCAAGGCGGGTGTGACTCCCTGCTGCGGAATGTGGAGGATGAGACGCCAGGACCTGACTGAGGAAT
447▶ R G L M G I S S T L C K A G A D S L L R N V E D E T P Q D L T E E

BglIII (2030) **XcmI (2067)** **Bsu36I (2085)**
2001 CCCTTGTCTTTTTGCCCTTTGATGACCTGAAGATCTCAGGAAACTGTGCTGTGTACCGACTGAAGCCAGGAGGCTGGGATCCTCAGGGCTCCACC
480▶ S L V L L P F D D L K I S G K L L L C T D •

MscI (2113) **BalI (2113)**
2101 TCTCCATGCTAGTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAATAAATGCTTTATTTGTAATTTGT
NheI (2107)

HpaI (2245) **MfeI (2256)**
2201 GATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACATTGCATTATTTATGTTTCAGTTTCAGGGGAGGTGTGGG

EcoRI (2341)
2301 AGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCCAAATCAAGCCTCTACTTGAATC

2401 CTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTCATTAGCTGTTTGACGCTCACCTTCTTTCATGGAGTTAAGATATAGT

 2501 GTATTTTCCCAAGGTTTGAAGTACTAGCTCTTCATTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAAATATTCAGAAAATAATTTAA **SspI (2580)** **SwaI (2594)**

 2601 ATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAA

 2701 CAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGA

 141 N R T Y K L P I L E E I T T K V
 2801 CCAGCTTGCCATTCACTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCT

 124 L K G N M E I L V F C D P A Y D S I L E R C M G C P S V V R I S R
 2901 GTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAG

 91 D V E D S Y P H R V A V I T D F D K Q G N S V A S G I A I A E A C
 3001 ACAGTGACCCTGCCAATGTAGGCCCTCAATGTGGACAGCAGAGATGATCTCCAGTCTTGGTCTGATGGCCGCCGACATGGTGTGTTGTCCTCAT

 57 V T V R G I Y A E I H V A S I I E G T K T R I A A G V H H K N D E Y
 3101 AGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTTCTCATGATGGCCCTCTATAGTGAGTCGTATT

 24 L M T I K E T A V E V L E L D Q Q S I N F T K M **XmnI (3161)** **BspHI (3169)**
 3201 A T A C T A T G C C G A T A T A C T A T G C C G A T G A T T A A T T G T C A A A C A G C G T G G A T G G C G T C T C C A G C T T A T C T G A C G G T T C A C T A A A C G A G C T C T G C T T A T A T

 3300 A G A C T C C C A C C G T A C A C G C C T A C C G C C A T T T G C G T C A A T G G G G C G G A G T T G T T A C G A C A T T T T G G A A G T C C C G T T G A T T A C T A G T C A A A A C A A A C

 3399 T C C A T T G A C G T C A A T G G G G T G G A G A C T T G G A A T C C C C G T G A G T C A A A C C G C T A T C C A C G C C A T T G A T G T A C T G C C A A A C C G C A T C A T C A T G G T A A T

 3499 A G C G A T G A C T A A T A C G T A G A T G T A C T G C C A A G T A G G A A A G T C C C A T A A G G T C A T G T A C T G G G C A T A A T G C C A G G C G G G C A T T T A C C G T C A T T G A C G T C A

 3599 A T A G G G G C G T A C T T G C A T A T G A T A C A C T T G A T G T A C T G C C A A G T G G G C A G T T T A C C G T A A A T A C T C C A C C A T T G A C G T C A A T G G A A A G T C C C A T T G

 3699 G C G T T A C T A T G G G A A C A T A C G T C A T T A T T G A C G T C A A T G G G C G G G G T C G T T G G G C G G T C A G C A G G C G G G C A T T T A C C G T A A G T T A T G T A A C C C T G

 3798 C A G G T T A A T T A A G A A C A T G T G A G C A A A A G C C A G C A A A A G G C C A G G A A C C G T A A A A A G C C G C G T T G C T G G C G T T T T C C A T A G G C T C C G C C C C C T G

 3896 A C G A G C A T C A C A A A A T C G A C G C T C A A G T C A G A G G T G G C G A A A C C G A C A G G A C T A T A A A G A T A C C A G G C G T T C C C C T G G A A G C T C C C T C G T G C G C T C

 3996 T C C T G T T C C G A C C C T G C C G T T A C C G G A T A C C T G T C C G C T T T C C C T T C G G A A G C G T G G C G C T T T C A T A G C T C A C G C T G T A G G T A T C T C A G T T C G

 4096 G T G T A G G T C G T T C G C T C C A A G T G G G C T G T G T G C A C G A A C C C C C G T T C A G C C C G A C C G T G C G C T T A T C C G G T A A C T A T C G T C T T G A G T C C A A C C C G G

 4196 T A A G A C A C G A C T T A T C G C C A C T G C C A G C A G C C A C T G G T A A C A G G A T T A G C A G A G C G A G G T A T G T A G G C G G T G C T A C A G A G T T C T T G A A G T G G T G G C T A A

 4296 C T A C G G C T A C A C T A G A A A C A G T A T T T G G T A T C T G C G C T G C T G A A G C A G T T A C C T T C G G A A A A G A G T T G G T A G C T C T T G A T C C G G C A A C A A C C

 4396 A C C G C T G G T A G C G G T G G T T T T T T G T T T G C A A G C A G A G A T T A C G C G C A G A A A A A A G G A T C T C A A G A A G A T C C T T T G A T C T T T T C T A C G G G T C T G A C G

 4496 C T C A G T G G A A C G A A A A C T C A C G T T A A G G G A T T T T G G T C A T G G C T A G T T A A T T A A C A T T T A A A T C A G C G G C C G C A A T A A A A T A T C T T T A T T T T C A T T A C A T

 4596 C T G T G T G T T G G T T T T T T G T G T G A A T C G T A A C T A A C A T A C G C T C C A T C A A A C A A A A C G A A A C A A A A C A A A C T A G C A A A T A G G C T G T C C C C A G T G C A A
 4696 G T G C A G G T G C C A G A A C A T T T C T C T A T C G A A