



PvuI (7)
SgfI (6)
 1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGTGCTGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **PvuII (239)** **Bsu36I (291)**
 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTCACGGCCGCCCTACCTGAGGCC
 301 GCCATCCACGCCGGTTGAGTCGGTCTGCGCCTCCCGCTGTGGTGCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
 401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGCTCAACTCTACGCTTTTGTTCGTTT

BstEII (555)
AgeI (552) **NcoI (560)**
 501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATGGAGCCCCTGCGGGTGTGGAGCTATACAGCGCGT
 1▶ M E P L R V L E L Y S G V

SphI (605)
 601 GGGCGCATGCACCACGCGCTGAGAGAAAGCTGTATACCTGCACAAGTGGTGGCTGCCATTGATGTCAACACTGTCGTAATGAAGTATACAAGTATAAT
 13▶ G G M H H A L R E S C I P A Q V V A A I D V N T V A N E V Y K Y N
 701 TTTCTCACACACAGTTACTTGCCAAGACAATTGAAGGCATTACACTCGAAGAGTTTGACAGATTATCTTTGATATGATTTTAATGAGCCCTCCCTGCC
 47▶ F P H T Q L L A K T I E G I T L E E F D R L S F D M I L M S P P C

NgoMIV (818) **XbaI (867)**
 801 AGCCATTCACAAGGATTGGCCGGCAGGGTGATATGACTGATTCAAGGACGAATAGCTTCTTATATATTCTAGATATTCTCCAAGATTACAAAAATTACC
 80▶ Q P F T R I G R Q G D M T D S R T N S F L Y I L D I L P R L Q K L P
 901 AAAGTATATTCTTTGGAAAATGTTAAAGGTTTGAAGTATCTTACAAGAGACCTTTGATACAAACAATAGAAAATTGTGGCTTTCAGTACCAAGAG
 113▶ K Y I L L E N V K G F E V S S T R D L L I Q T I E N C G F Q Y Q E
 1001 TTTCTATTATCTCCAACCTCTCTTGGCATTCCAATCAAGGCTACGATATTTTCTATTGCAAAGCTTCAGTCAGAGCCATTACCCTTTCAAGCCCTG
 147▶ F L L S P T S L G I P N S R L R Y F L I A K L Q S E P L P F Q A P

BsrGI (1134) **Psp1406I (1186)** **SspI (1198)**
 1101 GTCAGGTACTTATGGAGTCCCAAAATGAATCTGTACATCCAAAAATATGCAATGGATGTAGAAAAATAAATTCAAGAAAAAGAACGTTGAACCAAAA
 180▶ G Q V L M E F P K I E S V H P Q K Y A M D V E N K I Q E K N V E P N

BsaBI (1294)
 1201 TATTAGCTTTGATGGCAGCATACAGTGTCTGGAAAAGATGCCATTCTTTTTAAGCTTGAAACTGCAGAAGAAATTCACAGGAAAAATCAACAAGATAGT
 213▶ I S F D G S I Q C S G K D A I L F K L E T A E E I H R K N Q Q D S

SapI (1390)
 1301 GATCTCTGTGAAAATGCTAAAAGATTTTCTTGAAGATGACACTGACGTGAACCAGTATCTTTTACCACCAAAGTCATTGCTGCGATATGCTCTTCTGT
 247▶ D L S V K M L K D F L E D D T D V N Q Y L L P P K S L L R Y A L L

Tth111I (1470)
 1401 TAGACATTGTTACAGCCACTTGTAGAAGTCCGTGTGCTTTACCAAAGGATATGGAAGCTACATAGAAAGGACAGGGTCTGTGTTACAGACTGCAGAGGA
 280▶ L D I V Q P T C A R R S V C F T K G Y G S Y I E G T G S V L Q T A E D
 1501 TGTGCAGGTTGAGAATATCTCAAAATCCCTTACCAATTTGTACAAGAAGACAGATAACAAAGCTGTTAATACTTAAACTGCGATATTTCACTCCTAAA
 313▶ V Q V E N I Y K S L T N L S Q E E Q I T K L L I L K L R Y F T P K
 1601 GAAATAGCAAATCTCCTTGGATTTCTCCAGATTCGGATTTCTGAGAAGATAACAGTGAACAGCGTTATCGCCTACTTGGAAATAGTCTCAACGTGC
 347▶ E I A N L L G F P P E F G F P E K I T V K Q R Y R L L G N S L N V

MscI (1784)
NdeI (1763) **NheI (1778)**
 1701 ATGTAGTAGCTAACTAATCAAATCTTATATGAATAATTTTGAATAAECTCTGAAAGATGGTCATATGATATTCCTTCTAGCTGGCCAGACATGATAA
 380▶ H V V A K L I K I L Y E •
 1801 GATACATTGATGAGTTTGACAAACCACAAC TAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTAT

HpaI (1916)
 1901 AAGCTGCAATAAAACAAGTTAAACAACAACAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGAGGTTTTTAAAGCAAGTAAAACTCTAC

EcoRI (2012)
 2001 AAATGTGGTATGGAATTTCAAATAACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGC

SapI (2194)
 2101 ATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTTATGAGTAAAGATATAGTGTATTTTCCCAAGGTTTGAAC TAGCTCTT

SspI (2251) **SwaI (2265)**
 2201 CATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAAATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTT

EcoO109I (2326)
 2301 TTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAGGAACCTTTAATAGAAATGGACAG
 2401 CAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATGAGCACA
 141▶ N R T Y K L P I L E E I T T K V L K G N M E I L V

2501 AAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGA
114 F C D P A Y D S I L E R C M G C P S V V R I S R D V E D S Y P H R V
2601 CAGCCACAATGGTGTCAAAGCTTCTGCCCGTTGCTCACAGCAGACCAATGGCAATGGCTTACAGCAGACAGTACCCTGCCAATGTAGGCCTCAAT
81 A V I T D F D K Q G N S V A S G I A I A E A C V T V R G I Y A E I
2701 GTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCCGACATGGTCTTGTGTCTCATAGAGCATGGTATCTTCTCAGTGGCGACC
48 H V A S I I E G T K T R I A A G V H H K N D E Y L M T I K E T A V
2801 TCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGAT
14 E V L E L D Q Q S I N F T K M
2901 TAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCACCCTACACGCCTACCGCCCA
3001 TTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCAATGGGGTGGAGACTTGG
3101 AAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCAA
3201 GTAGGAAAGTCCATAAGGTCATGTAAGTCCATAATGCCAGGCGGGCCATTTACCGTCAATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTT
3301 GATGTAAGTCCATAAGGTCATGTAAGTCCATAATGCCAGGCGGGCCATTTACCGTCAATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTT
3401 CGTCAATGGGGCGGGGTCGTTGGCGGTGAGCCAGGCGGGCCATTTACCGTAAAGTTATGTAACCGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCC
3501 AGCAAAAGGCCAGGAACCGTAAAGGCGCGTTGCTGGCGTTTTTTCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAG
3601 GTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGGCTCTCTGTTCCGACCCTGCCGTTACCGGATACCTG
3701 TCCGCTTTCTCCCTTCGGAAGCGTGGCGTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGC
3801 ACGAACCCCGTTTCCGCTTATCCGTAAGTCCATAATGCCAGGCGGGCCATTTACCGTCAATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTT
3901 TGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAAGCAGTATTTGGTATC
4001 TGCCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCCGCTGGTAGCGGTGGTTTTTTTGTGCAAGC
4101 AGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTT
4201 GGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGGTTTTTTGTGTAATCGTAACTAA
4301 CATACGCTCTCCATCAAAAACAAACGAAAACAAACAAACTAGCAAAATAGGCTGTCCCAGTCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA