



PvuI (7)
SgfI (6) 1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGCTGTACTGGCTCCGCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCTGTGGTGCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

BstEII (555)
AgeI (552) **NcoI (560)**
501 TCTGTTCTGCCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATTGGCCTTCCAGGCTCCCTACCTGAGTCC

601 AGCTGTCCCTTTTCTGGGACTATTCAAGGAGGTCTCCAGGACGGACTTCAGATCACTGTCAATGGGACCGTCTCAGCTCCAGTGAACAGGTTTGTCT

13▶ A V P F S G T I Q G G L Q D G L Q I T V N G T V L S S S G T R F A
701 GTGAACCTTTCAGACTGGCTTTCAGTGGAAATGACATTGCCTTCACTTCAACCTCGGTTTGAAGATGGAGGTACGTGGTGTGCAACACGAGGCAGAACG

47▶ V N F Q T G F S G N D I A F H F N P R F E D G G Y V V C N T R Q N

Bsp120I (808) **EcoO109I (807)** **BbsI (822)**
801 GAAGCTGGGGGCCGAGGAGAGGAAGACACATGCCTTTCCAGAAGGGGATGCCCTTTGACCTCTGCTTCTGGTGCAGAGCTCAGATTTCAAGGTGAT

80▶ G S W G P E E R K T H M P F Q K G M P F D L C F L V Q S S D F K V M

BamHI (908) **ScaI (923)**
901 GGTGAACGGGATCCTTTCGTGCAGTACTTCCACCGCTGCCCTTCCACCGTGTGGACACCATCTCCGTCAATGGCTCTGTGCAGCTGCCTACATCAGC

113▶ V N G I L F V Q Y F H R V P F H R V D T I S V N G S V Q L S Y I S
1001 TTCCAGAACCCCGCACAGTCCCTGTTACGCTGCCTTCCACCGTGGCTTCCACCGCTGTCTGTTTCCACCCAGGCCAGGGGGCGCAGACAAA

147▶ F Q N P R T V P V Q P A F S T V P F S Q P V C F P P R P R G R R Q
1101 AACCTCCCGCGTGTGGCTGCCAACCCGGCTCCATTACCCAGACAGTCATCCACACAGTGCAGAGCGCCCTGGACAGATGTTCTACTCCCGCCAT

180▶ K P P G V W P A N P A P I T Q T V I H T V Q S A P G Q M F S T P A I

BstXI (1247)
1201 CCCACCTATGATGTACCCCAACCCGCCTATCCGATGCCTTTTCATCACCACCATTTCTGGGAGGGGTGTACCCATCCAAGTCCATCCTCCTGTGAGGCACT

213▶ P P M M Y P H P A Y P M P F I T T I L G G L Y P S K S I L L S G T
1301 GTCCTGCCAGTGTCTCAGAGTTCACATCAACCTGTGCTCTGGGAACACATCGCCTTCCACCTGAACCCCGTTTTGATGAGAATGCTGTGGTCCGCA

247▶ V L P S A Q R F H I N L C S G N H I A F H L N P R F D E N A V V R

MscI (1467)
1401 ACACCCAGATCGACAACCTCTGGGGTCTGAGGAGCGAAGTCTGCCCCGAAAATGCCCTTCGTCCTGGCCAGAGCTTCTCAGTGTGGATCTTGTGTGA

280▶ N T Q I D N S W G S E E R S L P R K M P F V R G Q S F S V W I L C E

Bsu36I (1557) **XcmI (1574)**
1501 AGCTCACTGCCTCAAGGTGGCCGTGGATGGTCAACCTGTTTGAATACTACCATCGCTGAGGAACCTGCCACCATCAACAGACTGGAAGTGGGGGGC

313▶ A H C L K V A V D G Q H L F E Y Y H R L R N L P T I N R L E V G G

MscI (1646)
NheI (1640)
1601 GACATCCAGCTGACCCATGTGCAGACATAGGCGGCTTCTGCTAGTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAACCTAGAATG

347▶ D I Q L T H V Q T •

HpaI (1778) **MfeI (1789)**
1701 CAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTGCATTC

EcoRI (1874)
1801 ATTTTATGTTTCAGGTTCAAGGGGAGGTGTGGGAGTTTTTAAAGCAAGTAAACCTCTACAAATGGTATGGAATTCTAAATACAGCATAGCAAAA

1901 CTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAG

SapI (2056)
2001 CCTCACCTTCTTTCATGGAGTTTAAAGATATAGTGATTTTCCCAAGTTTGAAGTACTGCTTCTCATTCTTTTATGTTTTAAATGCAGTACCTCCACATT

SspI (2113) **SwaI (2127)** **EcoO109I (2188)**
2101 CCCTTTTATAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATA

2201 ATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACT

141▶ • N R T Y K
2301 TGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCA

135▶ L P I L E E I T T K V L K G N M E I L V F C D P A Y D S I L E R C

BstXI (2417)
2401 CATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTC

102▶ M G C P S V V R I S R D V E D S Y P H R V A V I T D F D K Q G N S

2501 ACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTGACCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGA
68 V A S G I A I A E A C V T V R G I Y A E I H V A S I I E G T K T R I

StuI (2552)

2601 TGGCCGCCCCGACATGGTGTGTTGTCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGGT
35 A A G V H H K N D E Y L M T I K E T A V E V L E L D Q Q S I N F T

BbsI (2698)
XmnI (2694)

2701 CTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTAT
2 K M

AseI (2760)

2801 CTGACGGTTCACATAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTCGCTCAATGGGGCGGAGTTGTTACGACATTTTGGA

SpeI (2915)

2901 AAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGA

SnaBI (3043)

3001 TGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATG

NdeI (3148)

3101 CCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCC

3201 ACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCG

PacI (3334)

PstI (3327)
SdaI (3326) BspLU11I (3344)

3301 GGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAATAAGAACATGTGAGCAAAAGGCCAGAAAAGGCCAGGAACCGTAAAAAGCCGCTTGGCTG
3401 GCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGT

3501 TTCCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGAAGCGTGGCGCTTTCTCA

ApaLI (3658)

3601 TAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCC

3701 GGTAAGTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTG

3801 CTACAGAGTTCCTGAAGTGGTGGCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGT

3901 TGGTAGCTCTTGATCCGGCAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGAT

EagI (4094)
PacI (4074) SwaI (4083) NotI (4093)

4001 CCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCG

4101 CAATAAAATATCTTTATTTTATTACATCTGTGTGTTGTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAAA

4201 CTAGCAAAATAGGCTGTCCCGAGTGAAGTGCAGGTGCCAGAACATTTCTCTATCGAA