



PvuI (7)
SgfI (6)
MfeI (82) **EcoNI (96)**

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCGCCCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

KasI (535)
NcoI (560) **BstEII (555)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCCACCATGGCCTTACTTTTTACTGTTGGCCCTAGTGGT
EcoO109I (667)
1▶ M A L T F Y L L V A L V V

601 GCTCAGCTACAAGTCATTCAGCTCTCTGGGCTGTGATCTGCCTCAGACTCACAGCCTGGGTAACAGGAGGGCCTTGATACTCCTGGCACAATGCGAAGA
 13▶ L S Y K S F S S L G C D L P Q T H S L G N R R A L I L L A Q M R R
 701 ATCTCTCCTTTCTCTGCGCTGAAGGACAGACATGACTTTGAATCCCCCAGGAGGAGTTTGATGATAAACAGTCCAGAAGGCTCAAGCCATCTCTGTCC
 47▶ I S P F S C L K D R H D F E F P Q E E F D D K Q F Q K A Q A I S V

XbaI (873)

801 TCCATGAGATGATCCAGCAGACCTTCAACCTCTCAGCACAAAGGACTCATCTGCTGCTTTGGATGAGACCCTTCTAGATGAATTCTACATCGAACTTGA
 80▶ L H E M I Q Q T F N L F S T K D S S A A L D E T L L D E F Y I E L D

PvuII (904)
XmnI (993)

901 CCAGCAGCTGAATGACCTGGAGTCTGTGTGATGCAGGAAGTGGGGGTGATAGAGTCTCCCTGATGTACGAGGACTCCATCCTGGCTGTGAGGAAATAC
 113▶ Q Q L N D L E S C V M Q E V G V I E S P L M Y E D S I L A V R K Y

BspHI (1073)

1001 TTCAAAGAATCACTCTATATCTGACAGAGAAGAAATACAGCTTTGTGCCTGGGAGGTTGTCAGAGCAGAAATCATGAGATCCTTCTTTATCAATCA
 147▶ F Q R I T L Y L T E K K Y S S C A W E V V R A E I M R S F S L S I

MscI (1156)

1101 ACTTGCAAAAAGATTGAAGAGTAAGGAATGAGACCTGGTACAACACGGAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCAC
 180▶ N L Q K R L K S K E •

NheI (1150)

1201 AACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAAACAAC

HpaI (1288) **MfeI (1299)**

1301 AATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTCAAATACAG
 1401 CATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAG

SapI (1566)

1501 CTGTTTGCAGCCTCACCTCTTTTCATGGAGTTAAGATATAGTGTATTTCCCAAGGTTTGAAGTCTCTTCAATTTCTTTATGTTTTAAATGCACTGAC

SspI (1623) **SwaI (1637)**
EcoO109I

1601 CCCCCACATTCCTTTTTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAG
 1701 GCCCTTCATAATATCCCCAGTTTAGTGTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTC
141▶ • N

SacI (1898)

1801 CTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGA
 138▶ R T Y K 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

BstXI (1927)

1901 GCTCTGTCACATGCCACAGGGGCTGACCACCTGATGGACTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTTCTG
 105▶ E R C 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

StuI (2062)

2001 CCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCTCAATGTGGCAGCAGAGATGATCTCCCGATC
 72▶ G N S 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
 2101 TTGGTCTGATGGCCGCCCGACATGGTCTTGTGCTCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGA
 38▶ K T R I 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

BbsI (2208)
AseI (2270)

2201 TGTTGAAGTCTTTCATGGTGGCCCTCTATAGTGAAGTCTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTC
 5▶ N F T K M

SacI (2327)

2301 TCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACG

SpeI (2425)

2401 ACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAACAACCTCCATTGACGTCATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCCA

SnaBI (2553)
 2501 CGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAGGTCATGTACT

NdeI (2658)
 2601 GGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGTGTACTGCCAAGTGGGCAGTTTACCG

2701 TAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCTTGGGCGGT

PacI (2844)
PstI (2837)
SdaI (2836)
BspLU11I (2854)
 2801 CAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGC

2901 CGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAGA

3001 TACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGG

ApaLI (3168)
 3101 CGCTTTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTG

3201 CGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTAT

3301 GTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCG

3401 GAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACACCGCTGGTAGCGGTGTTTTTTTTGTTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATC

3501 TCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAA

EagI (3604)
NotI (3603)
 3601 TCAGCGCCGCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAAACAAAACGAA

3701 ACAAACAAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA