



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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGCGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA

101 GAGAAGGTGGCGCGGGGTAACCTGGGAAAGTGTGCTGTACTGGCTCCGCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
HindIII (245)
PvuII (239)
Bsu36I (291)

201 GTGAACGTTCTTTTTTCGCAACGGGTTTCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTTCACGGCCGCCGCCCTACCTGAGGCC

301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

KasI (535)
AgeI (552)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCCCTACCTGAGATCACCGGTCCCAATGGCCCTCCTGTTCCCTCTACTGGCAGCCCTAGTGAT

1▶ M A L L F P L L A A L V M

NcoI (648)

601 GACCAGCTATAGCCCTGTTGGATCTCTGGGCTGTGATCTGCCTCAGAACCCTAGTGGCTACTTAGCAGGAACACCTTGGTGTCTGCACCAAAATGAGGAGA

13▶ T S Y S P V G S L G C D L P Q N H G L L S R N T L V L L H Q M R R

701 ATCTCCCTTTCTGTGCTCAAGGACAGAAGAGACTTCAGGTTCCCGAGGAGATGGTAAAAGGGAGCCAGTTGCAGAAGGCCCATGTCATGCTGTGCC

47▶ I S P F L C L K D R R D F R F P Q E M V K G S Q L Q K A H V M S V

BglIII (818)
Eco47III (842)
XcmI (879)

801 TCCATGAGATGCTGCAGCAGATCTTCAGCCTCTCCACACAGAGCGCTCCTGCTGCCTGGAACATGACCCCTCTAGACCAACTCCACACTGGACTTCA

80▶ L H E M L Q Q I F S L F H T E R S S A A W N M T L L D Q L H T G L H

901 TCAGCAACTGCAACACCTGGAGACTGCTTGTGTCAGGTAGTGGGAGAAGGAGAATCTGCTGGGGCAATTAGCAGCCCTGCACTGACCTTGGAGAGGTAC

113▶ Q Q L Q H L E T C L L Q V V G E G E S A G A I S S P A L T L R R Y

BspHI (1073)

1001 TTCCAGGGAATCCGTGTCTACCTGAAAGAGAAGAAATACAGCGACTGTGCCTGGGAAGTTGTGAGAATGGAATCATGAAATCCTTGTCTTATCAACAA

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

MscI (1156)
NheI (1150)

1101 ACATGCAAGAAAGACTGAGAAGTAAAGATAGAGACCTGGGCTCATCTTGAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCAC

180▶ N M Q E R L R S K D R D L G S S •

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

1201 AACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAAC

EcoRI (1384)

1301 AATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGTTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAG

1401 CATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAG

1501 CTGTTTGCAGCCTCACCTCTTTTTCATGGAGTTTAAAGATATAGTGTATTTTCCCAAGGTTTGAAGTACTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGAC

SspI (1623)
SwaI (1637)
EcoO109I

1601 CTTCCACATTCCTTTTTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAAATAATGTTTTTATTAGGCAGAATCCAGATGCTCAAG

1701 GCCCTTCATAATATCCCCAGTTTGTAGTTGGACTTAGGGAACAAAGAACCTTAAATAGAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTC

141 • N

SacI (1898)

1801 CTGGTGTACTTGAGGGGATGAGTTCTCAATGGTGGTTTTGACCAGCTTGCATTCTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGA

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 GCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTG

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 CCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCGATC

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 TTGGTCTGATGGCCGCCCGACATGGTGTGTTGTCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGCTGAGAGA

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

BspHI (2212)
BbsI (2208)
XmnI (2204)
AseI (2270)

2201 TGTTGAAGGTCTTCATGATGGCCCTCTATAGTGTGATGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTC

5▶ N F T K M

SacI (2327)

2301 TCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTGCGTCAATGGGGCGGAGTTGTTACG

SpeI (2425)

2401 ACATTTTGGAAAGTCCCGTTGATTACTAGTCAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCC

SnaBI (2553)

2500 ACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCAAAGTAGGAAAGTCCATAAGGTATGATC

NdeI (2658)

2600 TGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACC

2700 GTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGG

SdaI (2836) **PacI (2844)** **BspLU11I (2854)**

2800 TCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCC**TGCAGGTTAA**TTAAGA**ACATGTGAGCAAAAGCCAGCAAAAGCCAGGAACCGTAAAA**

2898 **GGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAA**

2998 **AGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTCGGACCTGCCGCTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCG**

ApaLI (3168)

3098 **TGGCGTTTTCTCATAGCTCAGCTGAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAGCCCGACCG**

3198 **CTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGG**

3298 **TATGTAGCGGCTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCT**

3398 **TCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGGCAGAAAAAAGG**

PacI (3584) **SwaI (3593)**

3498 **ATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTT**

EagI (3604)
NotI (3603)

3598 **AAATCAGCGGCCGCAATAAAATATCTTTATTTTATTACATCTGTGTGGTTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAAC**

3698 **GAAACAAAACAACTAGCAAAATAGGCTGTCCCAGTGCAGGTGCCAGAACATTTCTCTATCGAA**