



100

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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGACAGTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGGCC

301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMI (441) **NaeI (441)**

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

KasI (535)
BspHI (560)

501 TCTGTTTGTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCATCATGATGCAAGAGCAGCAACCTCAAAGTACAGAGAAAAG

1▶ M M Q E Q Q P Q S T E K R

PshAI (617)
XcmI (690) **NdeI (698)**

601 AGGCTGGTTGTCCCTGAGACTCTGGTCTGTGGCTGGGATTTCCATTGCACTCCTCAGTCTTGTTCATTGTGAGCTGTGTAGTAACCTACCATTTTACA

13▶ G W L S L R L W S V A G I S I A L L S A C F I V S C V V T Y H F T

701 TATGGTAAACTGGCAAAGGCTGTCTGAACTACACTCATATCATTCAAGTCTCACCTGCTTCAAGTGAAGGGACAAAGGTGCCAGCCTGGGGATGTTGCC

47▶ Y G E T G K R L S E L H S Y H S S L T C F S E G T K V P A W G C C

801 CAGCTTCTTGAAGTCAATTTGGTCCAGTTGCTACTTCATTTCCAGTGAAGAGAAGGTTTGGTCTAAGAGTGAGCAGAAGTGTGTTGAGATGGGAGCACA

80▶ P A S W K S F G S S C Y F I S S E E K V W S K S E Q N C V E M G A H

PvuII (946)
BstXI (799)

901 TTTGGTTGTGTTCAACACAGAAGCAGAGCAGAATTTTCATTGTCCAGCAGCTGAATGAGTCATTTTCTTATTTTCTGGGGCTTTCAGACCCACAAGGTAAT

113▶ L V V F N T E A E Q N F I V Q Q L N E S F S Y F L G L S D P Q G N

AvrII (1056) **PstI (1076)**

1001 AATAATTGGCAATGGATTGATAAGACACCTTATGAGAAAAATGTCAGATTTTGGCACCTAGGTGAGCCCAATCATTCTGCAGAGCAATGTGCTTCAATAG

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

XmnI (1151)
HindIII (1196)

1101 TCTTCTGGAAACCTACAGATGGGGCTGGAATGATGTTATCTGTGAACTAGAAGGAATTCATATGTGAGATGAATAAGATTTACCTATGAGTAGAAGC

180▶ V F W K P T G W G W N D V I C E T R R N S I C E M N K I Y L •

MscI (1227) **NheI (1221)**

1201 TTAATTGAAAGAAGAGAAGAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTA

HpaI (1359) **MfeI (1370)**

1301 TTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAACAAGTTAAACAACAATTCATTCTTTTATGTTTCAGTTCA

EcoRI (1455)

1401 GGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTCTAAAATACAGCATAGCAAACTTTAACCTCCAAATCAAG

1501 CCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTTCATGGA

SspI (1694)

1601 GTTTAAGATATAGTGATTTTCCCAAGTTTGAAGTACTCTTCAATTTCTTTATGTTTAAATGCACTGACCTCCACATTCCCTTTTATGATAAAATTT

Swal (1708)
EcoO109I (1769)

1701 CAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAG

1801 TTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGGATGAGTTCTCT

1414 • N R T Y K L P I L E E

SacI (1969) **BstXI (1998)**

1901 AATGGTGGTTTTGACCAGCTTCCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACC

129▶ 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 M G C P S V

2001 ACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAA

95▶ 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 V A S G I A I

StuI (2133) **Eco147I (2133)**

2101 TGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCCGACATGGTG

62▶ 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 A A G V H H

BspHI (2283)

2201 CTTGTTGCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGATGGCCCTCCTA

29▶ 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 K M

VspI (2341) **AseI (2341)**
SacI (2398)

2301 TAGTGAGTCGATTATACTATGCGGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGA

2401 GCTCTGCTTATATAGACCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTA **SpeI (2496)**

2501 **G** TCAAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCAT

SnaBI (2624)
Eco105I (2624)

2601 CATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCACTGTACTGGGCATAATGCCAGGCGGGCCATTTACCG

NdeI (2729)

2701 TCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGTACTGCCAAAGTGGGCAGTTTACCCTAAATACTCCACCCATTGACGTCAATGGA

2801 AAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTA

PstI (2908) **PciI (2925)**
SdaI (2907) **PacI (2915)** **BspLU11I (2925)**

2901 TGTAACGCC **TGCAGGTTAA** TTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCT

2999 CCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCC

3099 CTCGTGCGCTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGT

ApaLI (3239)

3199 ATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAGCCCGACCCTGCGCCTTATCCGGTAACTATCGTCTTGA

3299 GTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAG

3399 TGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCG

3499 GCAAACAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTAC

EagI (3675)
PacI (3655) **SwaI (3664)** **NotI (3674)**

3599 GGGGTCTGACGCTCAGTGAACGAAAACACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC **AGCGCCGCAATAAAATATCTTTAT**

3699 TTTCATTACATCTGTGTGGTTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGT

3799 CCCAGTGC AAGTGCAGGTGCCAGAACATTTCTCTATCGAA