



PvuI (7)
SgfI (6) 1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

MfeI (82) EcoNI (96)

101 GAGAAGGTGGCGGGGTAAACTGGAAAGTGATGTCGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC

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

EcoNI (287)

301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGTTGCTCAACTCTACGTCTTTGTTTCGTTT

KasI (535) **AgeI (552)** **BspHI (560)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCATCATGAGCACAGAAAGCATGATCCGGACGTGAAACTGGC

1 M S T E S M I R D V E L A

601 AGAAGAGGCACTCCCCAAAAGATGGGGGCTTCCAGAACTCCAGGCGGTGCCTATGTCTCAGCCTTCTCTATTCTGTTGTGGCAGGGGCCACCAG

SapI (699)
13 E E A L P Q K M G G F Q N S R R C L C L S L F S F L L V A G A T T
701 CTCTTCTGTCTACTGAACCTCGGGGTGATCGGTCCCCAAAGGATGAGAAGTTCCAAATGGCTCCCTCTCATCAGTCTATGGCCAGACCTCACAC

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

DraIII (856) **BssHII (891)** **XcmI (896)**
801 TCAGATCATTTCTCAAATTCGAGTGACAAGCCTGTAGCCACGTCGTAGCAAACACCAAGTGGAGGAGCAGCTGGAGTGGCTGAGCCAGCGCCCAA

80 L R S S S Q N S S D K P V A H V V A N H Q V E E Q L E W L S Q R A N

901 CGCCCTCGGCCAACGGCATGGATCTCAAAGACAACCAACTAGTGGTCCAGCCGATGGGTTGTACCTGTCTACTCCAGGTTCTCTTCAAGGGACAA

113 A L L A N G M D L K D N Q L V V P A D G L Y L V Y S Q V L F K G Q
1001 GGTCGCCCGACTACGTGCTCCTACCCACACCGTCAGCCGATTTGCTATCTCATACCAGGAGAAAGTCAACCTCTCTGCGCTCAAGAGCCCTGCC

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

Bsu36I (1111) **BbsI (1162)** **Eco47III (1192)**
1101 CCAAGGACACCCCTGAGGGGCTGAGCTCAAACCTGGTATGAGCCCATATACCTGGGAGGAGTCTTCCAGCTGGAGAAGGGGACCAACTCAGCGCTGA

180 P K D T P E G A E L K P W Y E P I Y L G G V F Q L E K G D Q L S A E

1201 GGTCAATCTGCCAAGTACTTAGACTTTGCGGAGTCCGGCAGGTCTACTTTGGAGTCATTGCTCTGTGAAGGAATGGGTGTTTCATCCATTCTTACCC

213 V N L P K Y L D F A E S G Q V Y F G V I A L •

MscI (1311) **NheI (1305)**
1301 AGCCCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAACCCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGA

HpaI (1443) **MfeI (1454)**
1401 TGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTATTTATGTTTCAGGTTTCAGGGGGAGGTGTGGAG

EcoRI (1539)
1501 GTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCT

1601 TTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTTCATGGAGTTAAGATATAGTGT

SapI (1721) **SspI (1778)** **SwaI (1792)**
1701 ATTTTCCCAAGTGTGAACTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATAGTAAATATTCAGAAATAATTTAAAT

EcoO109I (1853)
1801 ACATCATTGCAATGAAAAATAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACA

1901 AAGGAACCTTAAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACC

141 • N R T Y K L P I L E E I T T K V
2001 AGCTTGCCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAAGATGAGCTCTCTGCATGCCACAGGGGCTGACCACCCTGATGGATCTGT

123 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 V R I S R D
2101 CCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGAC

90 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 A E A C V

StuI (2217)
2201 AGTGACCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCACTGTTGGTCTGATGGCCGCCCGACATGGTCTGTTGTCCTCATAG

57 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 K N D E Y

BbsI (2363) **XmnI (2359)**
2301 AGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCTATAGTGAAGTCTATTAT

23 L M T I K E T A V E V L E L D Q Q S I N F T K M

AseI (2425)
2401 ACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGA

2501 CCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCC GTT GATT TACTAGTCAAACAAACTCCC ^{SpeI (2580)}
2601 ATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCG
SnaBI (2708)
2701 ATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCACTGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAG
NdeI (2813)
2801 GGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATTGGCGT
PacI (2999)
PstI (2992)
SdaI (2991)
2901 TACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGGTCTTTGGGCGGTCTAGCCAGGCGGGCCATTTACCGTAAAGTTATGTAACGCC TGCAGGT
BspLU11I (3009)
3001 TAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGCGGTTTTTCCATAGGCTCCGCCCCCTGACGAGCA
3101 TCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTT
3201 CCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGAAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCCGGTGTAGG
ApaLI (3323)
3301 TCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACA
3401 CGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGC
3501 TACTACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTTTGATCCGGCAAACAAACCACCGCTG
3601 GTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTCTACGGGGTCTGACGCTCAGTG
EagI (3759)
PacI (3739) **Swal (3748)** **NotI (3758)**
3701 GAACGAAACTCACGTAAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTG
3801 TTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGG
3901 TGCCAGAACATTTCTCTATCGAA