



PvuI (7)
SgfI (6) 1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) 201 GTGAACGTTCTTTTTTCGCAACGGGTTTCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACCGCGCCGCCCTACCTGAGGCC

301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCTGTGGTGCCTCCTGAACTGCGTCCCGCTTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTCCTGACCTGCTTCTCAACTCTACGCTTTTGTTCGTTT

BstEII (555)
AgeI (552) 501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTACCATGGCATTACCAAACATTTATACTGACGTGAACTTCAA

1 M A L P N I Y T D V N F K

StuI (618)
601 AAATCAACCTGTTTCTCAGGCCTCATCTCAGACTCGTCTTTCATGTACCGTCTCAGACTCGTCTTTCAGCTCTCCCAAAGAAGACCACTATTACAAAAGT

13 N Q P V S S G L I S D S S S C T V S D S S S A L P K K T T I H K S

701 AACCTGGCTTCCAGGCTGCTTCTGCTTGGATATTTTCTGCTGTTGGCAATCTTATTCTGTGCTGATCATTTTATTTCAAATGTATT

47 N P G F P R L L L A L W I F F L L L A I L F S V A L I I L F Q M Y

XbaI (825) 801 CTGATCTCCTGAAGAAAATATACTCTAGAACGACTGAATCACGCAAGATTGCATTGTGAAAAACCACTCGTCTGTAGAAGACAAAGTCTGGAGCTG

80 S D L L E E K Y T L E R L N H A R L H C V K N H S S V E D K V W S C

BstXI (904) 901 TTGTCAAAGAATTGGAAGCCATTTGATCCCCTGCTACTTCACTTCCCCTGACACTGCATCCTGGAGTAAGAGTGAAGAGAAGTCTCCCTCAGGGGT

113 C P K N W K P F D S H C Y F T S R D T A S W S K S E E K C S L R G

SapI (1027) 1001 GCTCATCTGCTGGTATCCAGAGCCAGGAAGAGCAGGATTTTCATCACCAACTCTGAACCTCGTGTGCTTATTATGTGGGGTGTGAGATCCAAAGG

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

NcoI (1101) 1101 GCCATGGACAATGGCAGTGGGTTGATCAGACACCATATGATCAAAATGCCACATCCTGGCACTCAGATGAACCCAGTGGCAACTGAATTTTGTGTTGT

180 G H G Q W Q W V D Q T P Y D Q N A T S W H S D E P S G N T E F C V V

NdeI (1133) 1201 GCTAAGTTATCATCAAACGTTAAAGGATGGGCTGGAGTGTGCCCCCTTGTGATGGTGTGATAGTTGATTTGTGAGATGAGGCAGCTCTATGATGA

213 L S Y H P N V K G W G W S V A P C D G D H R L I C E M R Q L Y V •

BsaBI (1252) 1301 ACGAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGA

MscI (1311) 1401 TGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACATTGCATTATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAG

HpaI (1443) 1501 GTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAATAACAGCATAGCAAACCTTAACTCCAATCAAGCCTCTACTTGAATCCT

EcoRI (1539) 1601 TTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTTGGCAATGTGCATTAGCTGTTGCAGCCTCACCTCTTTTCATGGAGTTAAGATATAGTGT

SapI (1721) 1701 ATTTTCCAAGTTTGAAGTCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAATATTCAGAAATAATTTAAAT

SspI (1778) 1801 ACATCATTGCAATGAAAAATAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACA

EcoO109I (1853) 1901 AAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTGTAGTTCCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGACC

141 • N R T Y K L P I L E E I T T K V

SacI (2053) 2001 AGCTTGCCATTCTCAATGAGCACAAGCAGTCAAGGATGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGT

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 CCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAAGCAGAC

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 AGTGACCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTCTGTTGTCCCTCATAG

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

2301 AGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCCTATAGTGAGTCGTATTAT
 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

XmnI (2359)
AseI (2425) **SacI (2482)**

2401 ACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGA

SpeI (2580)

2501 CCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCC GTT GATTTACTAGTCAAAAACAACTCCC
 2601 ATTGACGTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCG

SnaBI (2708)

2701 ATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAG

NdeI (2813)

2801 GGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATTGGCGT

PacI (2999)

PstI (2992)
SdaI (2991)

2901 TACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAAGTTATGTAACGCCTGCAGGT

BspLU11I (3009)

3001 TAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCA
 3101 TCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTT
 3201 CCGACCCTGCCGTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCCGGTGTAGG

ApaLI (3323)

3301 TCGTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACA
 3401 CGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGC
 3501 TACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACACCGCTG
 3601 GTAGCGGTGGTTTTTTTGTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTG

EagI (3759)
PacI (3739) **SwaI (3748)** **NotI (3758)**

3701 GAACGAAAACACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTG
 3801 TTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGG
 3901 TGCCAGAACATTTCTCTATCGAA