



PvuI (7)
SgfI (6) 1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA MfeI (82)

101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGTGTCGTGTAAGTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

301 GCCATCCAGCGCGGTTGAGTCGCGTTTCTGCCGCTCCCGCTGTGGTGCCTCTGAAGTGCCTCCGCTCTAGGTAAGTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCTGCTTGTCAACTCTACGCTTTGTTTCGTTT

NcoI (560)
BstEII (555)
501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTACCATTGGCCTTGACCTTTGCTTTACTGGTGGCCCTCCTGGT
1▶ M A L T F A L L V A L L V

KasI (535) **AgeI (552)**
601 GCTCAGCTGCAAGTCAAGTCTGCTGTGGGCTGTGATCTGCCTCAAACCCACAGCCTGGGTAGCAGGAGACCTTGATGCTCCTGGCACAGATGAGGAGA
13▶ L S C K S S C S V G C D L P Q T H S L G S R R T L M L L A Q M R R

EcoO109I (667)
701 ATCTCTTTTTCTCCTGCTTGAAGGACAGACATGACTTTGGATTTCCCCAGGAGGAGTTTGGCAACCAGTTCCAAAAGGCTGAAACCATCCCTGTCCTCC
47▶ I S L F S C L K D R H D F G F P Q E E F G N Q F Q K A E T I P V L

XcmI (747)
801 ATGAGATGATCCAGCAGATCTTCAATCTCTTCAGCACAAAGGACTCATCTGCTGCTTGGGATGAGACCCTCTAGACAAATTCTACACTGAACTCTACCA
80▶ H E M I Q Q I F N L F S T K D S S A A W D E T L L D K F Y T E L Y Q

BglII (815)
901 GCAGCTGAATGACCTGGAAGCCTGTGTGATACAGGGGGTGGGGGTGACAGAGACTCCCCTGATGAAGGAGGACTCCATTCTGGCTGTGAGGAAATCTTC
113▶ Q L N D L E A C V I Q G V G V T E T P L M K E D S I L A V R K Y F

XmnI (990)
1001 CAAAGAATCACTCTCTATCTGAAAGAGAAGAAATACAGCCCTTGTGCCTGGGAGTTGTGAGAGCAGAAATCATGAGATCTTTTTCTTTGTCAACAACT
147▶ Q R I T L Y L K E K K Y S P C A W E V V R A E I M R S F S L S T N

BglII (1075) **BspHI (1070)**
1101 TGCAAGAAAGTTTAAAGAAGTAAGGAATGAAAACCTGGTTCAACATGGAATGAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAAC
180▶ L Q E S L R S K E •

MscI (1158) **NheI (1152)**
1201 ACAACTAGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAGTTAAACAAC
1391▶ L Q E S L R S K E •

HpaI (1290)
1301 ACAATTGCATTATTTTTATGTTTCAGGTTACAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATAC
1401 AGCATAGCAAACTTTAACTCCAAATCAAGCCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATT
1501 AGCTGTTGACGCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTGCTCTTCATTCTTTATGTTTTAAATGCAGT

SspI (1625) **SwaI (1639)**
1601 ACCTCCACATTCCCTTTTAGTAAAATATTCAGAAAATATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCA
1701 AGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGACTTCTAGCTTTAGT
1801 TCCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGAT
139▶ R T Y K L P I L E I T T K V L K G N M E I L V F C D P A Y D S I

EcoO109I (1700)
1901 GAGCTCTGACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTC
106▶ L 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

SacI (1900) **BstXI (1929)**
2001 TGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCAG
72▶ Q 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

StuI (2064)
2101 TCTTGGTCTGATGGCCGCCGACATGGTCTTGTCTCATAGAGATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGA
39▶ 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

BspHI (2214) **BbsI (2210)**
2201 GATGTTGAAGTCTTCATGATGGCCCTCTATAGTGTGATGCTATTATACTATGCGGATATACTATGCCGATGATTAATTGCAAAACAGCGTGGATGGCG
6▶ I N F T K M

XmnI (2206) **AseI (2272)**
2301 TCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTA
341▶ L Q E S L R S K E •

SacI (2329)

2401 **SpeI (2427)**
 CGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAACAAACTCCCATGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTAT

2500 **SnaBI (2555)**
 CCACGCCATTGATGTAAGTCCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCCAAGTAGGAAAGTCCCATAAAGGTCATGT

2600 **NdeI (2660)**
 ACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGTACTGCCAAGTGGGCAGTTTA

2700 CCGTAAATACTCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCGTTGGGC

2800 **PstI (2839)** **SdaI (2838)** **PacI (2846)** **BspLU11I (2856)**
 GGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCGAGTTAAATAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAA

2898 AAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTAT

2998 AAAGATACCAGGCGTTTCCCTGGAAGCTCCCTCGTGCCTCTCTGTCCGACCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAG

3098 **ApaI (3170)**
 CGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGGTGTAGGTGCTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGAC

3198 CGCTGCGCCTTATCCGGTAACTATCGTCTTGTAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGA

3298 GGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTAC

3398 CTTCGAAAAAGAGTTGGTAGCTTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAA

3498 **PacI (3586)** **SwaI (3595)**
 GGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGAACGAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACAT

3598 **EagI (3606)**
 TTAATCAGCGGCCGCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAA

3698 **NotI (3605)**
 ACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA