



PvuI (7)
SgfI (6) 1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA **EcoNI (96)**

101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCCTACCTGAGGCC **EcoNI (287)**

301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCTCCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

KasI (535) **AgeI (552)** **BspHI (560)**
501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCATCATGAAATCACTCTCATATAGAGAATCTGGATGAAGA **XcmI (676)**
1▶ M K Y H S H I E N L D E D

601 TGGATATACTCAATTAGACTTCAGCACTCAAGACATCCATAAAAGGCCAGGGGATCAGAGAAAGGAAGCCGGCTCCATCTTCACCTTGAGAGCCATT **XcmI (676)**
13▶ G Y T Q L D F S T Q D I H K R P R G S E K G S R A P S S P W R P I

PstI (743)
701 GCAGTGGGTTTAGGAATCCTGTGCTTTGTGGTAGTAGTGGTTGCTGCAGTGCTAGGTGCCCTAGCATTGGAACACAAATTCAGGGAGAAATCCAGAA G
47▶ A V G L G I L C F V V V V A A V L G A L A F W R H N S G R N P E

801 AGAAAGACAACCTCCATCAAGAAATAAGAGACACCAAGCCACAGAATCATCTTTAGATGAGAAGGTGGCTCCCAAGGCATCCCAAACTACAGG
80▶ E K D N F P S R N K E N H K P T E S S L D E K V A P S K A S Q T T G

Ppu10I (934) **NsiI (934)**
901 AGGTTTTTCTCAGCCTTGCCTTCCATAATTGGACCATGCATGGGAAGAGCTGTACCTATTTAGCTTCTCAGGAAATTCCTGGTATGGAAGTAAGAGACAC
113▶ G F S Q P C L P N W T M H G K S C Y L F S F S G N S W Y G S K R H

1001 TGCTCCAGCTAGGTGCTCATCTACTGAAGATAGACAACCTCAAAGAATTTGAGTTCATTGAAAGCCAAACATCATCTCACCATATTACTGCATTTTGA
147▶ C S Q L G A H L L K I D N S K E F E F I E S Q T S S H H I T A F W

StuI (1101) **NcoI (1129)**
1101 TAGGCCTTTCCCGCAATCAGAGTGAAGGGCCATGGTTCTGGGAGGATGGATCAGCATTCTTCCCAACTCGTTTCAAGTCAGAAATACAGCTCCCCAGGA
180▶ I G L S R N Q S E G P W F W E D G S A F F P N S F Q V R N T A P Q E

HindIII (1200) **NheI (1297)**
1201 AAGCTTACTGCACAATTGTGATGGATTGATGATCAGAGGTCTACAACCAAATCTGCAATACTTCTTCATACAGTATCTGTGAGAAGGAACTGTAAGCT
213▶ S L L H N C V W I H G S E V Y N Q I C N T S S Y S I C E K E L •

MscI (1303)
1301 AGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTG

HpaI (1435)
1401 CTTTATTTGTAACCATTATAAGCTGCAATAAACAGTTAAACAACAACATTGCATTATTTTATGTTTCAGGTTCAAGGGGAGGTGTGGGAGGTTTTTTA

EcoRI (1531)
1501 AAGCAAGTAAACCTCTACAATGTGGTATGGAATTTAAAATACAGCATAGCAAACTTTAACTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAG
1601 GGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTTCATGGAGTTAAGATATAGTATTTC

SspI (1770) **SwaI (1784)**
1701 AAGTTTGAAGTACTGCTTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATT

EcoO109I (1845)
1801 GCAATGAAAATAAATGTTTTTATTAGCGAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACC
1901 TTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCC
141▶ • N R T Y K L P I L E E I T T K V L K G

SacI (2045)
2001 ATTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCA
121▶ 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 V E

2101 TCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCAGCAGACCCAATGGCAATGGCTTCAGCAGACAGCAGTGCAC
87▶ 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 T V R

StuI (2209)
2201 TGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCACTTGGTCTGATGGCCGCCCGACATGGTGTCTGTTGTCTCATAGAGCATGGT
54▶ 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 L M T

BbsI (2355) **XmnI (2351)**
2301 GATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCC
21▶ I K E T A V E V L E L D Q Q S I N F T K M

AseI (2417) **SacI (2474)**
2401 GATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCAC

2501 CGTACACGCCTACGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAAGTCCCGTTGATTTACTAGTCAAAAACAAACTCCCATTGACGT
SpeI (2572)

2601 CAATGGGGTGGAGACTTGAAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAA
PacI (2991)

SnaBI (2700)

2701 TACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAGGTCACTGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTA
PstI (2984)

NdeI (2805)

2801 CTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGG
SdaI (2983)

2901 GAACATACGTCATTATTGACGTCAATGGGCGGGGTCTGTTGGGCGGTACGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATAAG
PacI (2991)

BspLU11I (3001)

3001 AACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGCGTTTTTCCATAGGCTCCGCCCTGACGAGCATCACAAA
PstI (2984)

3101 ATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCT
SdaI (2983)

3201 GCGGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCG

ApaLI (3315)

3301 TCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTAT

3401 CGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAG

3501 AAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGT

3601 GGTTTTTTTGGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAAA

EagI (3751)

3701 ACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTT
PacI (3731) SwaI (3740) NotI (3750)

3801 TTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAA

3901 CATTCTCTATCGAA