



100

PvuI (7)
SgfI (6) 1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA **MfeI (82)**
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) 201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTACGCGCCCGCCGCCCTACCTGAGGCC **HindIII (245)** **Bsu36I (291)**
301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCCTGCTTCTCAACTCTACGCTTTTGTTCGTTT **NgoMIV (441)**

501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTACCATTGGCAGCCGGTCAGAATGGCCACGAGGAGTGGGTGGG **KasI (535)** **BstEII (555)** **AgeI (552)** **NcoI (560)**
1▶ M A A G Q N G H E E W V G

601 CAGTGCATACCTGTTTTGGAGTCTGCGGTAGACAAGGTGATCCTGTCTGAAGCTACACGGATCCCAAGAAGAAGGTGGCAATATACAAGGCTCTGCAG **XcmI (665)**
13▶ S A Y L F L E S A V D K V I L S E A Y T D P K K K V A I Y K A L Q **BamHI (660)**
701 ACTGCACTGTCAGAGAGTGGGACAGCTCTGACGTACTGCAGATACTCAAGATCCACTGCAGCGACCCCTCAGCTCATCGTCCAGTTGCGGTTCTGCGGGC
47▶ T A L S E S G D S S D V L Q I L K I H C S D P Q L I V Q L R F C G

801 GCGTGTGTGCGCGCCTTCTCCAAGCCTACCGGAGGGGGCGCTGCGCACCGCTGCAGAGGTGCATGGCCCCGGCGCTTCCCAGGAAGCGCTGCG **NotI (809)** **FspI (845)** **Eco47III (891)**
80▶ R V L C G R F L Q A Y R E G A L R T A L Q R C M A P A L A Q E A L R
901 GTTGACGCTGGAGTTGCGTGCAGGTGCGGAGCAGCTGGACAGTTGGTGTACTGATGAAGAGCGCTGTTTGAATTACATCTTAGCCAGAACCCGACCGG **Eco47III (959)**
113▶ L Q L E L R A G A E Q L D S W L T D E E R C L N Y I L A Q K P D R

1001 CTCAGGGACGAGAACTCGCGGAGCTGGAGGATGAGCTCTGCAAACCTGACGTGTGACTGCAGTGGCCAGGGTGGAGCCATACAGGTAGCTTCTGCAGGTT **BstBI (1098)**
147▶ L R D E E L A E L E D E L C K L T C D C T G Q G G A I Q V A S A G

1101 CGAAGTCCCGGTTTCTCTCCGACCGAGGAGAAACCACTGCCGGCGCCTGCCAGACTTTTCTGTTCCACGGGCAGCTCGTAGTGAACITGGCCACTGAC **NgoMIV (1140)**
180▶ S K F P V S S P T E E K P L P A A C Q T F L F H G Q L V V N W P L T

1201 TCTCAAGACCAGCAGAGCTTTGCGCGCTCGGTGGTCTCAAGTGGCGCAGGGTGGGGCGCTCGTGCAGCGTAACTGTGCGGCACTGAGAGATCCTGCC **BssHIII (1222)**
213▶ L Q D Q Q T F A R S V G L K W R R V G R S L Q R N C R A L R D P A

1301 CTCGACTCGCTGGCCTACGAGTATGAGCGTGATGGGCTATACGAGCAGGCCTTCCAGCTGCTGCGCCGTTTCATGCAAGCCGAGGGCCCGCTGCCACAC **StuI (1346)**
247▶ L D S L A Y E Y E R D G L Y E Q A F Q L L R R F M Q A E G R R A T

1401 TGCAGCGCTGGTGGAGGCGCTGGAGGAGAACGAACCTACTAGTCTAGCAGAGGATCTGTTGGCCAGCGGAGCCGGATGGCGGCTGGCCTAAGTCTA **SpeI (1438)** **ScaI (1499)**
280▶ L Q R L V E A L E E N E L T S L A E D L L G Q A E P D G G L A •

1501 GTACTGTGGGAAGGGCGCAACCAGCAGTTCAGTGTTGAAACCCACGGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCAC **NheI (1550)**

1601 AACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAAACAGTTAAACAACAAC **HpaI (1688)** **MfeI (1699)**

1701 AATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAATAACAG **EcoRI (1784)**
1801 CATAGCAAACTTAACTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAG
1901 CTGTTTGCAGCCTCACCTCTTTTCTGAGTAAAGATATAGTGATTTTCCCAAGGTTTGAAGTACTGCTTCTTCTTTATGTTTTAAATGCACTGAC

2001 CCCCCACATTCCTTTTTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAAATAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAG **SspI (2023)** **SwaI (2037)** **EcoO109I**
2101 GCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTC
141▶ • N
2201 CTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGA
138▶ R T Y K L P I L E E I T T K V L K G N M E I L V F C D P A Y D S I L

2301 GCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTG **BstXI (2327)**
105▶ 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 Q

2401 CCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCCAGCAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCGATC **StuI (2462)**
72▶ 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
2501 TTGGTCTGATGGCCGCCGACATGGTCTTGTTCCTCATAGAGCATGGTATCTTCTCAGTGGCAGCTCCACCAGCTCCAGATCTGCTGAGAGA
38▶ 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 I

BspHI (2612)
BbsI (2608)
XmnI (2604)

2601 **TGTTGAAGGTTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAA** **AseI (2670)** **AACAGCGTGGATGGCGTC**
 5' **N F T K M**

2701 **TCCAGCTTATCTGACGGTTCATAAACGAGCTCTGCTTATATAGACCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACG**

SpeI (2825)
 2801 **ACATTTTGAAAAGTCCCGTTGATTTACTAGTCAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCC**

SnaBI (2953)
 2900 **AGCCCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTATGTAC**

NdeI (3058)
 3000 **TGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACC**
 3100 **GTAATACTCCACCCATTGACGTCAATGAAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGCGGGGGTTCGTTGGCGGG**

SdaI (3236) **PacI (3244)** **BspLU11I (3254)**
 3200 **TCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCC T G C A G T T A A T T A A G A A C A T G T G A G C A A A A G G C C A G C A A A A G G C C A G G A A C C G T A A A A A**
 3298 **GGCCGCTTGTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAA**
 3398 **AGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCG**

ApaLI (3568)
 3498 **TGGCGTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCG**
 3598 **CTGCGCTTATCCGTAACCTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGG**
 3698 **TATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACCTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCT**
 3798 **TCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGG**

PacI (3984) **SwaI (3993)**
 3898 **ATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTATGGCTAGTTAATTAACATT**

NotI (4003)
 3998 **AAATCAGCGGCCGCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAAC**
 4098 **GAAACAAAACAACTAGCAAATAGGCTGTCCCGAGTCAAGTGCAAGTGCCAGAACATTTCTCTATCGAA**