



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) Bsu36I (291)
Psp1406I (203) **PvuII (239)** EcoNI (287)
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGACAGACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC

301 GCCATCCACGCGGTTGAGTGCAGTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGCTTTTGTTCGTTT

NgoMIV (441)
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCCCTACCTGAGATCACCGGTCACCATGGATTACATCCTGCTGATGTGGGACTGCTCACGTT

BstEII (555) **AgeI (552)** **NcoI (560)**
601 CATCATGGTGCCTGGCTGCCAGGAGAGCTCTGTGACGATGACCCGCCAGAGATCCCACAGCCACATTCAGGCAACTCTAGCCACTCGTCTGGGACAACCAAT

13▶ I M V P G C Q A E L C D D D P P E I P H A T F K A M A Y K E G T M

BsrGI (760) **NcoI (674)**
701 TTGAAGTGTGAATGCAAGAGAGGTTTCCGAGAAATAAAAAGGGGTCCTCTATATGCTGTACAGGAACTCTAGCCACTCGTCTGGGACAACCAAT

47▶ L N C E C K R G F R R I K S G S L Y M L C T G N S S H S S W D N Q

801 GTCAATGCACAAGCTCTGCCACTCGAAACACAACGAAACAAAGTACACCTCAAGTGAAGAACAGAAAGAAAGAAACACAGAAATGCAAAGTCCAAT

80▶ C Q C T S S A T R N T T K Q V T P Q P E E Q K E R K T T E M Q S P M

901 GCAGCCAGTGGACCAAGCGAGCCTTCCAGTCACTGCAGGAACTCCACCATGGGAAATGAAGCCACAGAGAGAATTTATCATTTTCGTGGTGGGGCAG

113▶ Q P V D Q A S L P G H C R E P P P W E N E A T E R I Y H F V V G Q

PstI (933) **NcoI (949)**
1001 ATGTTTTATTATCAGTGCCTCCAGGATACAGGGCTCTACACAGAGGCTCTGCTGAGAGCGTCTGCAAAATGACCCACGGGAAGACAAGTGGACCCAGC

147▶ M V Y Y Q C V Q G Y R A L H R G P A E S V C K M T H G K T R W T Q

EcoO109I (1044) **BbsI (1080)**
1101 CCCAGTCCATATGCACAGGTGAAATGGAGACCAGTCAAGTTCCAGGTGAAGAGAAGCCTCAGGCAAGCCCGAAGGCCGCTCTGAGAGTGAAGTTCCTG

180▶ P Q L I C T G E M E T S Q F P G E E K P Q A S P E G R P E S E T S C

NdeI (1107) **Bsu36I (1156)**
1201 CCTCGTCAACAACAGATTTTCAAATACAGACAGAAATGGCTGCAACCATGGAGAGCTCCATATTTACAACAGAGTACCAGGTAGCAGTGGCCGGCTGT

213▶ L V T T T D F Q I Q T E M A A T M E T S I F T T E Y Q V A V A G C

NcoI (1247) **NgoMIV (1291)**
1301 GTTTTCTGCTGATCAGCGTCTCCTCCTGAGTGGGCTCACCTGGCAGCGGAGACAGAGGAAGAGTAGAAGAACAATCTAGAAAACAAAAGAACAAGAA

247▶ V F L L I S V L L L S G L T W Q R R Q R K S R R T I •

XbaI (1376)
1401 GCTAGCTGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAACCTAGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTA

MscI (1406) **NheI (1400)**
1501 TTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACCTGCAATCATTATTTATGTTTCAGGTTCCAGGGGAGGTGGGAGGTTTT

HpaI (1538) MfeI (1549)
1601 TTAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTGAACTCTTTCT

EcoRI (1634)
1701 GAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTCAGCCTCACCTTCTTTTATGAGTAAAGATATAGTGTATTTT

SapI (1816) **SspI (1873)** **SwaI (1887)**
1801 CCAAGGTTTGAAGTCTCTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAATATTCAGAATAATTTAAATACATC

EcoO109I (1948)
1901 ATTGCAATGAAAATAAATGTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTGTAGTGGACTTAGGGAACAAAGGA

2001 ACCTTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTT

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

BstXI (2177)
2101 GCCATTCATCTCAATGAGCACAAAGCAGTCAAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCCCTGATGGATCTGTCCACC

122▶ 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 R I S R D V

2201 TCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCCAGCAGACAGTGA

88▶ 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 T V

StuI (2312)
2301 CCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTGTTGCTCCTCATAGAGCAT

55▶ 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 L M

BbsI (2458) **XmnI (2454)**
2401 GGTGATCTTCTCAGTGGCGACCTCCACCAGTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCTATAGTGAATCGTATTACTAT

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

2501 **AseI (2520)**
GCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCC

2601 **SpeI (2675)**
CACCGTACACGCCTACCGCCATTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAACTCCCATTGA

2701
CGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGAC

2801 **SnaBI (2803)**
TAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGC

2901 **NdeI (2908)**
GTACTTGGCATATGATACACTTGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCTATTGGCGTTACTA

3001 **PacI (3094)**
PstI (3087)
SdaI (3086)
TGGGAACATACGTCATTATTGACGTCAATGGGGCGGGTCTGGGGCGTCCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAAAT

3101 **BspLU11I (3104)**
AAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACA

3201
AAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGAC

3301
CCTGCCGCTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTT

3401 **ApaLI (3418)**
CGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACAGACT

3501
TATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACAC

3601
TAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCCGCTGGTAGC

3701
GGTGGTTTTTTTGGTGGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGAACG

3801 **EagI (3854)**
PacI (3834) **Swal (3843)** **NotI (3853)**
AAAACACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGT

3901
TTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCGTGAAGTGCAGGTGCCA

4001
GAACATTTCTATCGAA