



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** EcoNI (287)
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGGCC
301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTGTTTCGTTT

NgoMIV (441)
501 TCTGTTCTGCGCGGTTACAGATCCAAGCTGTGACCGCGGCTACCTGAGATCACCGGTCAACATGTTCCCTTTGCTTACTATATGTTCTGTCAAGTTTC
AgeI (552) **BspLU11I (560)**
1▶ M F P F A L L Y V L S V S

XmnI (606) **HpaI (639)** **ScaI (694)**
601 TTTTCAGGAAAATCTTCATCTTACAACCTGTAGGGCTGGTGTAACTTACGACTTCACTAACTGTGACTTTGAGAAGATTAAGCAGCCTATCTCAGTACT
13▶ F R K I F I L Q L V G L V L T Y D F T N C D F E K I K A A Y L S T
701 ATTTCTAAAGACCTGATTACATATATGAGTGGACCAAAAGTACCGAGTTCAACAACACCGTCTCTTGAGCAATCGGCCACATTGCCTTACTGAAATCC
47▶ I S K D L I T Y M S G T K S T E F N N T V S C S N R P H C L T E I

NgoMIV (823) **XcmI (962)**
801 AGAGCCTAACCTTCAATCCCACCGCGGCTGCGCGTGCCTCGCCAAAGAAATGTTCCGATGAAAAGTAAAGGCTGCCTTACTGATCTGGTGCCAGGCTA
80▶ Q S L T F N P T A G C A S L A K E M F A M K T K A A L A I W C P G Y
901 TTCGGAAACTCAGATAAATGCTACTCAGGCAATGAAGAAGAGGAGAAAAAGGAAAGTCAACAACCAATAAATGTCTGGAACAAGTGTCAACAATTACAAGGA
113▶ S E T Q I N A T Q A M K K R R K R K V T T N K C L E Q V S Q L Q G

XcmI (1043) **NheI (1080)** **MscI (1086)**
1001 TTGTGGCGTCGCTTCAATCGACCTTACTGAAACAACAGTAAACCATCTTTATTATGGTCATATTTACAGCACCAAAAATGCTAGCTGGCCAGACATGAT
147▶ L W R R F N R P L L K Q Q •
1101 AAGATACATTGATGAGTTTGACAAACCACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATT

HpaI (1218) **MfeI (1229)**
1201 ATAAGCTGCAATAAAACAGTTAAACAACAACATTCATTCTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACTCT

EcoRI (1314)
1301 ACAATGTGGTATGAATTCTAAAATACAGCATAGCAAACTTAACTCCAATCAAGCCTCTACTGAATCCTTTTCTGAGGGATGAATAAGGCATAG

SapI (1496)
1401 GCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTGCAGCCTCACCTTCTTTATGAGGTTTAAAGTATAGTGTATTTCCCAAGGTTTGAAGTACGCTC

SspI (1553) **Swal (1567)**
1501 TTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAAAATGT

EcoO109I (1628)
1601 TTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAGGAACCTTAAATAGAATTGGAC

1701 AGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCA
141▶ • N R T Y K L P I L E E I T T K V L K G N M E I L V

SacI (1828) **BstXI (1857)**
1801 CAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCT
115▶ 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 D S Y P H R

StuI (1992)
1901 GACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTACAGCAGACAGTACCCTGCCAATGTAGGCCTCA
82▶ 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 G I Y A E
2001 ATGTGGACAGCAGAGATGATCTCCAGTCTGGTCTGATGGCCGCCGACATGGTGTGTTGTCCTCATAGAGCATGGTATCTTCTCAGTGGCGA
48▶ 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 I K E T A V

BbsI (2138) **XmnI (2134)**
2101 CCTCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCTATAGTGAAGTCTATTATACTATGCCGATATACTATGCCGATG
15▶ E V L E L D Q Q S I N F T K M

AseI (2200) **SacI (2257)**
2201 ATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCC

SpeI (2355)
2301 CATTTCGCTCAATGGGGCGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAACAACCTCCATTGACGTCAATGGGGTGGAGACTT

SnaBI (2483)
2401 GGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCC

2501 AAGTAGGAAAGTCCATAAGGTCATGACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACAC **NdeI (2588)**

2601 TTGATGACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCTATTGGCGTTACTATGGGAACATACGTCAATTATT

2701 GACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCGAGGTTAA **PacI (2774)**
PstI (2767) **SdaI (2766)** **BspLU11I (2784)**

2801 CCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAG

2901 AGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCGGACCTGCCGCTTACCGGATACC

3001 TGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGGTGAGGTGCTTCGCTCCAAGCTGGGCTGTGT **ApaI (3098)**

3101 GCACGAACCCCGTTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCC

3201 ACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTA

3301 TCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTGTTTGCAA

3401 GCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTCTACGGGTCTGACGCTCAGTGAACGAAACTCACGTTAAGGGATT

3501 TTGGTCATGGCTAGTTAATTAACATTTAAATC **EagI (3534)**
PacI (3514) **SwI (3523)** **NotI (3533)** AGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACT

3601 AACATACGCTCTCCATCAAAACAAAACGAAACAAAACAAACTAGCAAATAGGCTGTCCCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA