



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

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** EcoNI (287)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGACAGACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

KasI (535) **AgeI (552)** **BspHI (560)** **XcmI (568)**
501 TCTGTTCTGCGCGGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCATCATGACTCAAAGTTTTATGGCTGGTGGCCCTTGTCGC
601 TCTATACATTCCGCCATCCAATCTCTGAAGTGTGTTACCTGGATGATAGCATCTTGGAAAAATGTGAAACTTCTGGGAGTACCATGACCGGCTTTCCC
13▶ L Y I P P I Q S L N C V Y L D D S I L E N V K L L G S T M T G F P

EcoRV (715) **NdeI (763)**
701 TTAAGATGCTAAAAGATATCACAGATTTTAAAGTTTCTAAAGAGATTTTCCATACATCCAGCATATGAAAAGGGAGATAAACGCCGCTCCTATCGTA
47▶ L R C L K D I T D F K F P K E I L P Y I Q H M K R E I N A V S Y R
801 TATCCTCTGGCACTAATCTTCAATCTTAAAGCTCCATCCCTCAGTGCAGAGGAACACTGGGAACGTATCAGATCGGGACTTTCAAACAAGT
80▶ I S S L A L T I F N L K G S I P P V T E E H W E R I R S G L F K Q V
901 GCGCAAGCTCAAGAGTCTTATGAGCAGGAGAAAGAGAACAGGAACATCCTCACTCCGAGGACTTCTGACAGTCTACCTGGAGTTGGGCAAGTAT
113▶ R Q A Q E C F M D E E K E N R E H P H S E D F L T V Y L E L G K Y
1001 TTCTTCAGAAATCAAAAAGTTCCTGATAAATAAGAAATACAGTTTCTGTGCATGGAAGATTGTCACAGTGGAAATAAGAAGATGTTTCATTATATTTTCCA
147▶ F F R I K K F L I N K K Y S F C A W K I V T V E I R R C F I I F S

EcoRV (1122) **NheI (1161)** **MscI (1167)**
1101 AGTCCAGAAAATACTCAAATGATATCAGAATCACCCACCTTCAAGCAAGAACTTAAATAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTT
180▶ K S R K L L K M I S E S P T F K Q E L K •

HpaI (1299)
1201 GGACAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAAG

MfeI (1310) **EcoRI (1395)**
1301 TTAACAACAACAATTGCATTCATTTATGTTTCAGGTTACAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATT
1401 CTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTGAACTCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGCTGTTGCCA
1501 ATGTGCATTAGCTGTTTGACGCTCACCTTCTTTCATGGAGTTAAGATATAGTGATTTTCCCAAGGTTTGAAGTACTCTTTCATTTCTTTATGTTTTA

SspI (1634) **Swal (1648)**
1601 AATGCACTGACCTCCACATTCCCTTTTGTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTTATTAGGCAGAAATCC

EcoO109I (1709)
1701 AGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGAAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCT
1801 AGCTTTAGTTCCTGGTACTTTGAGGGGATGAGTTCTCAATGGTGGTTTTGACCAGCTTGCATTTCATCTCAATGAGCACAAGCAGTCAGGAGCATA
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 F C D P A Y

SacI (1909) **BstXI (1938)**
1901 GTCAGAGATGAGCTCTGCACATGCCACAGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCA
109▶ 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 V A V I T D

StuI (2073)
2001 AAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGA
75▶ 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 I H V A S I I
2101 TCTCCCCAGTCTTGGTCCGTGATGGCCGCCCGACATGGTGCTTGTGCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACAGCTCCAGATC
42▶ 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 E V L E L D

BbsI (2219) **XmnI (2215)** **AseI (2281)**
2201 CTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCCTATAGTGAGTCTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGG
9▶ Q Q S I N F T K M

SacI (2338)
2301 TGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCG

SpeI (2436)
2401 GAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAACAAACTCCATTGACGTCATGGGGTGGAGACTTGGAAATCCCGTGAGTCAA

SnaBI (2564)
2501 ACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCAAAGTGGAAAGTCCCATAA

2601 GGTCATGTAAGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTAAGTGG
 2701 GCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGCGGGGGT
 2801 CGTTGGGCGGTGACGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAATTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAAC
 2901 CGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAG
 3001 GACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTTCTCCCTTC
 3101 GGGAAAGCGTGGCGCTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAG
 3201 CCCGACCGCTGCGCCTTATCCGTAACATATCGTCTTGAAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCA
 3301 GAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGCCTAACTACGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCC
 3401 AGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGA
 3501 AAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAAT
 3601 TAACATTTAAATC AGCGGCCGAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACATAACATACGCTCTCCATCAA
 3701 AACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTCTCTATCGAA

NdeI (2669)

PacI (2855)

PstI (2848)
SdaI (2847) BspLU11I (2865)

ApaLI (3179)

PacI (3595)

EagI (3615)
SwaI (3604) NotI (3614)