



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

101 GAGAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) 201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC PvuII (239) EcoNI (287)

301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTGTTTCGTTT NgoMIV (441)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCCTACCTGAGATCACCGGTACCATGGTGACCCTGCGGAAGAGGACCCTGAAAGTGCTCAC NcoI (560) BstEII (555) AgeI (552) BstEII (564) EcoO109I (580) MscI (659)

1 M V T L R K R T L K V L T

601 CTTCTCGTGCTTCTCATCTTCCACCTCCTTCTTCTGAAGTACTCCACACCATGGTGGCCACCACCTGGTTCCTCAAGCAGATGGTCTCGAGCTC NcoI (653)

13 F L V L F I F L T S F F L N Y S H T M V A T T W F P K Q M V L E L

701 TCCGAGAACCTGAAGAGACTGATCAAGCACAGGCTTGACCTGCACCACTGCATCGGGCAGCGCAAGCTCTCGGCCTGGTTCGATGAGAGGTTCAACC StuI (730)

47 S E N L K R L I K H R P C T C T H C I G Q R K L S A W F D E R F N

801 AGACCATGACGCCCTGTGACTGCCAGAACGCGCTCTTGAGGACGACACCTACCGATGGTGGCTGAGGCTCCAGCGGAGAAAGCCCAATAACT

80 Q T M Q P L L T A Q N A L L E D D T Y R W W L R L Q R E K K P N N L

901 GAATGACACCATCAAGGAGCTGTTCAAGTGGTGCCTGGGAATGTGGACCCTATGCTGGAGAAGAGGTCGGTGGGCTGCCGGCTGCGCCGTTGTGGGC NgoMIV (977)

113 N D T I K E L F R V V P G N V D P M L E K R S V G C R R C A V V G

1001 AACTCGGCAACCTGAGGAGTCTTATGGGCTGAGATAGACAGTCAAGTCTTGTCTCAGGATGAACAAGGCGCCACGGCAGGTTTGAAGCTG BbsI (1020) Tth111I (1051) KasI (1074)

147 N S G N L R E S S Y G P E I D S H D F V L R M N K A P T A G F E A

1101 ATGTTGGGACCAAGACCACCCACCATCTGGTGTACCCTGAGAGCTTCCGGGAGCTGGGAGATAATGTCAGCATGATCCTGGTGCCTTCAAGACCATCGA XcmI (1115)

180 D V G T K T T H H L V Y P E S F R E L G D N V S M I L V P F K T I D

1201 CTTGGAGTGGGTGGTGGAGCGCCATCACCACGGGACCATTTCCACACCTACATCCCGGTTCTGCAAAGATCAGAGTAAACAGGATAAGATCCTGATC BsaBI (1290)

213 L E W V V S A I T T G T I S H T Y I P V P A K I R V K Q D K I L I

1301 TACCACCCAGCCTTCAAGTATGCTTTGACAAGTGGTGCAGAGGCGGATACCCATCTACCGGCATCCTCTCGGTCATCTTCAATGCATG BsaBI (1355) NsiI (1393)

247 Y H P A F I K Y V F D N W L Q G H G R Y P S T G I L S V I F S M H

1401 TCTGCGATGAGGTGGACTGTACGGCTTCCGGGAGACAGCAAAGGAACTGGCACCCTACTGGGAGAAACCCATCCGCGGGGGCTTTTCGCAAGAC SacII (1478)

280 V C D E V D L Y G F G A D S K G N W H H Y W E N N P S A G A F R K T

1501 GGGGTGCACGATGCAGACTTTGAGTCTAACGTGACGGCCACCTTGGCTCCATCAATAAAATCCGGATCTTCAAGGGGAGATGACGCAGTGAAGGGCTG ApaLI (1504) SfiI (1536) BspEI (1562)

313 G V H D A D F E S N V T A T L A S I N K I R I F K G R •

1601 AGGATGGACGCACTGTCACACCTGCTAGCTGGCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTT MscI (1629) NheI (1623)

1701 TATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAAGTAAACAACAACATTCATTTATGTTTCAGGTT HpaI (1761) MfeI (1772)

1801 CAGGGGGAGGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACCTTAACTCCAATCA EcoRI (1857)

1901 AGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTTTCATG

2001 GAGTTAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTCTTCAATTTCTTTATGTTTAAATGCACTGACCTCCACATTCCTTTTATGTAATAAATA SspI (2096)

2101 TTCAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGT SwaI (2110) EcoO109I (2171)

2201 AGTTGACTTAGGGAACAAAGGAACCTTAAATAGAAATTTGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTC

2301 TCAATGGTGGTTTTGACCAGCTTCCATTCTCAATGAGCACAAGCAGTCAAGGATGAGTCAAGTCTCTGCACATGCCACAGGGGCTGA 141 N R T Y K L P I L E

129 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 E R C M G C P S V

2401 CCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGC

96 V R I S R D V 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

2501 AATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGG
 63 I A E A C V T V 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
 BspHI (2685)
 BbsI (2681)
 XmnI (2677)
 2601 TGCTTGTGTCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTCC
 29 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 N F T K M
 AseI (2743)
 2701 TATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACATAAC
 SpeI (2898)
 2801 GAGCTCTGCTTATATAGACCTCCACCCTACACGCCTACCGCCATTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTA C
 2901 TAGTCAAACAAACTCCATTGACGTCAATGGGGTGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGC
 SnaBI (3026)
 3001 ATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCATAAGGTCATGACTGGGCATAATGCCAGGCGGGCCATTTAC
 NdeI (3131)
 3101 CGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGACTGCCAAGTGGGCAGTTTACCCTAAATACTCCACCCATTGACGTCAATG
 3201 GAAAGTCCCTATTGGCGTACTATGGGAACATACGTCATTATTGACGTCAATGGGGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCCTAAGT
 PstI (3310)
 SdaI (3309) PacI (3317) BspLU11I (3327)
 3301 TATGTAACGCCTGCAGGTTAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGG
 3399 CTCCGCCCCCTGACGAGCATCAGAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCT
 3499 CCCTCGTGCCTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGAAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAG
 ApaLI (3641)
 3599 GTATCTCAGTTCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTT
 3699 GAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGA
 3799 AGTGGTGGCCTAACTACGGCTACACTAGAAGAAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATC
 3899 CGGCAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCT
 EagI (4077)
 PacI (4057) SwaI (4066) NotI (4076)
 3999 ACGGGTCTGACGCTCAGTGAACGAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTT
 4099 ATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAAACTAGCAAATAGGCT
 4199 GTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA