



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

HindIII (245)
Psp1406I (203) **PvuII (239)** EcoNI (287)
 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAACTGCGTCCGCGCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

401 GGGCCTTTGTCCGGCGCTCCCTTGAGGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT
 501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCAACATGTGGACTCCAGCCGGAGGCAGCTCTGCCTGCATT
 1 M W T P S R R Q L C L T F

KasI (535) **AgeI (552)** **BspLU11I (560)**
 601 TCTGTTGGTCTGTGTGCTCTCTGCCGGCTCCTTCTTTTTCCACCTGAATGGAGGAAACTTCTTTCGAAATGGTCTAACTCTCTGTCTGTGTTTCAGAC
 13 L L V C V L S A G S F F F H L N G G N F F R N G L T L S V L C S D

BstBI (662)
 701 TATCACCTGCTGAAGTCCCAAGTGGCCATGGTATGCCTACCTCATCCATTGCAGACATCTAATGGCTCCCTTCTGTCTGAGCAGTCTCCTCACTCT
 47 Y H L L K S P V A M V C L P H P L Q T S N G S P S C P E Q S S S L
 801 CTGGGACTTGGACAATCACCCAGGAGGAGGTTTGGTAAACAGATGGGGCAGTATGTACATTGCTGGCCCTAGCCAGCTCAATGGTGCCTCAAGCCTT
 80 S G T W T I T P G G R F G N Q M G Q Y A T L L A L A Q L N G R Q A F
 901 CATCCAACCTGAGATGCAGCGCCCTGGCCCGGTTCGGAATCTCCCTGCCAGTGTGGACCTGAGGTGGACAGCCTCACACCTTGGCAGCACTTA
 113 I Q P E M H A A L A P V F R I S L P V L D P E V D S L T P W Q H L

ScaI (1025) **EcoO109I (1040)**
 1001 GTCCTACATGACTGGATGTCAGAGGAGTACTCCCATCTGGAGGACCCATTTCTCAAGCTGTCTGGTTTCCCCTGCTCTTGACCTTTTTCCATCATCTTC
 147 V L H D W M S E E Y S H L E D P F L K L S G F P C S W T F F H H L

EcoRI (1117) **BsrBI (1164)**
 1101 GGGAAACAGATTCTAGGGAATTCACCTCTGCATAACCATCTACGGGAAGGTGCCAGTACCTGTTGAGCGGTCTCCGATAGGCCCGGGGCGGCATCCGCC
 180 R E Q I R R E F T L H N H L R E G A Q Y L L S G L R I G P A G I R P

XcmI (1218)
 1201 TCATACCTTTGTGGGTGTCCATGTGCTGCTGGAGACTATCTGGAGGTGATGCCAATCGCTGGAAGGGTGTGGTGGGTGACCAGCTTACCTCCAGCAA
 213 H T F V G V H V R R G D Y L E V M P N R W K G V V G D R A Y L Q Q

Bsp120I (1316)
 1301 GCCATGGACTGGTTCGGGCCCCGACACAAAGACCCCATCTTTGTGGTACCAGCAATGGCATGAAATGGTGGTGGGAGAACATTGACACATCCCATGGTG
 247 A M D W F R A R H K D P I F V V T S N G M K W C L E N I D T S H G

BbsI (1405) **DraIII (1458)** **BspHI (1478)**
 1401 ATGTGGTCTTCGCTGGCAATGGACAGGAGGTTACACCAAGGAAGGACTTTGCACCTCTCACACAGTGTAAACCACCATCATGACTATTGGCACCTTTGG
 280 D V V F A G N G Q E G T P G K D F A L L T Q C N H T I M T I G T F G

Tth111I (1528) **BglII (1577)** **StuI (1585)**
 1501 CTTCTGGGCTGCCTACTTAGCTGGTGGAGACACGGTCTACCTTGCAAACCTCACCTGCCAGATTGGAGTTTCTGAAGATCTTCAGGCTGAGGCTGCC
 313 F W A A Y L A G G D T V Y L A N F T L P D S E F L K I F R P E A A

PstI (1642)
 1601 TTCCTGCCGAGTGGGTGGGCATCAATGCAGACTTGTCCCGCTGCAGGCTCAATTTGACCTTGGGAAGCCAGACAGTCTTTTTAGATTGGTCTGACTCA
 347 F L P E W V G I N A D L S P L Q A Q F D P W K P D S L F R L V •

MseI (1730) **NheI (1724)**
 1701 TCAGAAGTCAGCCATCCATGTCTCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAACCTAGAATGCAGTAAAAAATGCCT

HpaI (1862) **MfeI (1873)**
 1801 TTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGTGAATAAACAAGTTAACAACAACCAATTGCATTATTTATGTTTCAGGT

EcoRI (1958)
 1901 TCAGGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAAATCTAAAATACAGCATAGCAAACTTTAACTCCAAATC
 2001 AAGCCTCTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTGACGCTCACCTTCTTTTCAT

SspI (2197)
 2101 GGAGTTTAAAGATATAGTGTATTTTCCCAAGTTTGAACCTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATCCCTTTTTAGTAAAT

SwaI (2211) **EcoO109I (2272)**
 2201 ATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAG
 2301 TAGTTGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCTGGTACTTGGAGGGGATGAGTTC
 141 • N R T Y K L P I L E

2401 CTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTTGCACATGCCACAGGGGCTG
130 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
2501 ACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCCTTCTGCCCGTTGCTCACAGCAGACCCAATGG
96 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 G N S V A S G I A

2601 CAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCCGACATG
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

2701 GTGCTTGTTCCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTC
30 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

2801 CTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAA

2900 ACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAAGTCCCGTTGATTT

3000 ACTAGTCAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAAC

3099 CGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCACTGACTGGGCATAATGCCAGGCGGGCCATT

3199 TACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGCAGTTTACCCTAAATACTCCACCATTGACGTCA

3299 ATGAAAAGTCCCTATTGGCGTACTATGGGAACATACGTCAATTATTGACGTCAATGGGGGGGGTCTGTTGGCGGTGACGACAGCGGGCCATTACCCTA

3399 AGTTATGTAACGCC T G C A G 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 G G C C G T T G C T G G C G T T T T C C A T

3497 A G G C T C C G C C C C C T G A C G A G C A T C A C A A A A T C G A C G C T C A A G T C A G A G G T G G C G A A A C C C G A C A G G A C T A T A A A G A T A C C A G G C G T T T C C C C T G G A A

3597 G C T C C C T C G T G C G C T C T C T G T T C C G A C C T G C C G T T A C C G G A T A C T G T C C G C T T T C T C C C T T C G G G A A G C G T G G C G C T T T C T C A T A G C T C A C G C T G

3697 T A G G T A T C T C A G T T C G G T G T A G G T C G T T C G T C C A A G C T G G G C T G T G C A C G A A C C C C C G T T C A G C C C G A C C G T G C G C T T A T C C G G T A A C T A T C G T

3797 C T T G A G T C C A A C C G G T A A G A C A C G A C T T A T C G C C A C T G G C A G C A G C C A C T G G T A A C A G G A T T A G C A G A G C G A G G T A T G T A G G C G G T G C T A C A G A G T T C T

3897 T G A A G T G G T G C C T A A C T A C G G C T A C A C T A G A A G A A C A G T A T T T G G T A T C T G C G C T C T G C T G A A G C C A G T T A C C T T C G G A A A A A G A G T T G G T A G C T C T T G

3997 A T C C G G C A A A C A A A C C A C C G C T G G T A G C G G T G G T T T T T T G T T T G C A A G C A G C A G A T T A C G C G C A G A A A A A A G G A T C T C A A G A A G A T C C T T T G A T C T T T

4097 T C T A C G G G G T C T G A C G C T C A G T G G A A C G A A A A C T A C G T T A A G G G A T T T T G G T C A T G G C T A G T T A A T T A A C A T T T A A A T C A G C G C C G C A A T A A A A T A T C

4197 T T T A T T T T C A T T A C A T C T G T G T T G G T T T T T G T G T G A A T C G T A A C T A A C A T A C G C T C C A T C A A A A C A A A C G A A A C A A A C A A A C T A G C A A A T A G

4297 G C T G T C C C A G T G C A A G T G C A G G T G C C A G A A C A T T T C T A T C G A A