



100

PvuI (7)
SgfI (6) 1 GGATCTGGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
MfeI (82)
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTACGCGCCCGCCGCTACCTGAGGCC
301 GCCATCCACGCGGGTTGAGTCGCGTTTCTGCCGCCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCGCTAGGTAAGTTAAAGCTCAGGTCGAGACC

NgoMIV (441) **NaeI (441)**
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGCTTTTGTTCGTTT

KasI (535) **AgeI (552)** **BspHI (560)**
501 TCTGTTCTGGCGGTTACAGATCCAAGCTGTGACCGCGGCTACCTGAGATCACCGGTCATCATGATGTTCTCGGGCTCAACGCAGACTACGAGGCGTC
1 M M F S G F N A D Y E A S

EagI (626)
601 ATCCTCCCCTGCAGCAGCGCTCCCGCGGGATAGCCTCTCTTACTACCACTCACCCGAGACTCCTTCTCCAGCATGGGCTCGCTGTCAACGGC
13 S S R C S S A S P A G D S L S Y Y H S P A D S F S S M G S P V N A

BspEI (771)
701 CAGGACTTCTGCACGGACCTGGCCGTCTCCAGTGCCTCACTCCACGGTCACTGCCATCTCGACCACTCCGGACCTGCAGTGGCTGGTGCAGCCCG
47 Q D F C T D L A V S S A N F I P T V T A I S T S P D L Q W L V Q P
80 CCCTCGTCTCCTCGTGGCCCATCGCAGACAGCCCTCACCTTTTCGGAGTCCCGCCCTCCGCTGGGGCTTACTCCAGGGCTGGCGTTGTGAA
80 A L V S S V A P S Q T R A P H P F G V P A P S A G A Y S R A G V V K
90 GACCATGACAGGAGCCGAGCGCAGAGCATTGGCAGGAGGGCAAGGTGGAACAGTTATCTCCAGAAGAAGAAGAAAAGGAGAATCCGAAGGAAAGG
113 T M T G G R A Q S I G R R G K V E Q L S P E E E E K R R I R R E R
100 AATAAGATGGCTGCAGCCAAATGCCCAACCGGAGGAGGGAGCTGACTGATACCTCCAAGCGGAGACAGACCAACTAGAAGATGAGAAGTCTGCTTTGC
147 N K M A A A K C R N R R R E L T D T L Q A E T D Q L E D E K S A L
110 AGACCGAGATTGCCAACCTGCTGAAGGAGAAGGAAAACCTAGAGTTATCCTGGCAGCTCACCGACTGCCTGCAAGATCCCTGATGACCTGGGCTTCCC
180 Q T E I A N L L K E K E K L E F I L A A H R P A C K I P D D L G F P

StuI (1271)
1201 AGAAGAGATGCTGTGGCTTCCCTTGATCTGACTGGGGCCTGCCAGAGTTGCCACCCCGAGTCTGAGGAGGCTTACCCTGCCTCTCCTCAATGAC
213 E E M S V A S L D L T G G L P E V A T P E S E E A F T L P L L N D

XemI (1307)
1301 CCTGAGCCCAAGCCCTCAGTGGAACTGTCAAGAGCATCAGCAGCATGGAGCTGAAGACCGAGCCCTTGTGACTTCTGTTCCAGCATCATCCAGGC
247 P E P K P S V E P V K S I S S M E L K T E P F D D F L F P A S S R

BsrBI (1419)
1401 CCAGTGGCTCTGAGACAGCCCGTCCGTGCCAGACATGGACCTATCTGGTCTTCTATGACGACAGCTGGGAGCCTGCACAGTGGCTCCCTGGGGAT
280 P S G S E T A R S V P D M D L S G S F Y A A D W E P L H S G S L G M

MscI (1508)
NcoI (1505)
Bsp120I (1501) **ApaLI (1530)** **BstEII (1542)**
1501 GGGGCCATGGCCACAGAGCTGGAGCCCTGTGACTCCGGTGGTCACTGTACTCCAGCTGCAGTCTTACAGTCTTCTTCTGCTTTCACCTACCCC
313 G P M A T E L E P L C T P V V T C T P S C T A Y T S S F V F T Y P
1601 GAGGCTGACTCCTTCCAGCTGTGCAGCTGCCACCGCAAGGGCAGCAGCAATGAGCCTTCTCTGACTCGCTCAGCTCACCCAGCTGCTGGCCC
347 E A D S F P S C A A H R K G S S S N E P S S D S L S S P T L L A

MscI (1724) **NheI (1718)**
1701 TGTGAGGGGGCAGGAAGGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAATAAATGCTTTATTT
380 L •

HpaI (1856) **MfeI (1867)**
1801 GTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTATTTATGTTTCAGGTTACGGG

EcoRI (1952)
1901 GGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCT
2001 CTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTTCATGGAGTT

SspI (2191)
2101 TAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATGAAAATATTACAG

SwaI (2205)
2201 AAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTATAATATCCCCAGTTTAGTAGTTG
2301 GACCTAGGGAACAAGGAACCTTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTGAGGGGGATGAGTTCCTCAAT
141 • N R T Y K L P I L E E I

SacI (2466)
2401 GGTGGTTTTGACCAGCTTGCATTTCATCTCAATGAGCACAAAGCAGTCAAGGATAGTGCAGATGAGTCTCTGCACATGCCACAGGGGCTGACCACC
128 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 V
2501 CTGATGGATCTGTCCACCTCATCAGAGTAGGGGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGG
94 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 I A

2601 **StuI** (2630) CTT CAG CAC A G A C A G T G A C C C T G C C A A T G T A G G C C T C A A T G T G G A C A G C A G A G A T G A T C T C C C C A G T C T T G G T C C T G A T G G C C G C C C G A C A T G G T G C T T
 61 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 H K
 BspHI (2780)

2701 **XmnI** (2772) G T T G T C C T C A T A G A G C A T G G T G A T C T T C T C A G T G G C G A C C T C C A C C A G C T C C A G A T C C T G C T G A G A G A T G T T G A A G G T C T T C A T G A T G G C C C T C C T A T A G
 28 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 **AseI** (2838) T G A G T C G T A T T A T A C T A T G C C G A T A T A C T A T G C C G A T G A T T A A T T G T C A A A A C A G C G T G G A T G G C G T C C C A G C T T A T C T G A C G G T T C A C T A A A C G A G C T
 SpeI (2895)

2901 **SpeI** (2993) C T G C T T A T A T A G A C C T C C C A C C G T A C A C G C C T A C C G C C A T T T G C G T C A A T G G G G C G G A G T T G T T A C G A C A T T T T G G A A A G T C C C G T T G A T T T A C T A G T
 3000 C A A A C A A A C T C C C A T T G A C G T C A A T G G G G T G G A G A C T T G G A A A T C C C C G T G A G T C A A A C C G T A T C C A C G C C A T T G A T G T A C T G C C A A A C C G C A T C A
 SnaBI (3121)

3100 T C A T G G T A A T A G C G A T G A C T A A T A C G T A G A T G T A C T G C C A A G T A G G A A G T C C C A T A A G G T C A T G T A C T G G G C A T A A T G C C A G G C G G G C A T T T A C C G T C
 NdeI (3226)

3200 A T T G A C G T C A A T A G G G G G C T A C T T G G C A T A T G A T A C A C T T G A T G T A C T G C C A A G T G G G C A G T T T A C C G T A A A T A C T C C A C C C A T T G A C G T C A A T G G A A A
 3300 G T C C C T A T T G G C G T T A C T A T G G G A A C A T A C G T C A T T A T T G A C G T C A A T G G G C G G G G T C G T T G G G C G G T C A G C C A G G C G G G C A T T T A C C G T A A G T T A T G
 SdaI (3404) PacI (3412) BspLU11I (3422)

3400 T A A C G C C 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 A A A A G G C C A G G A A C C G T A A A A A G C C G G T T G C T G G C G T T T T T C C A T A G G C T C C
 3498 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 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 G C T C C C T
 3598 C G T G C G C T C T C C T G T T C C G A C C C T G C C G T T A C C G G A T A C C T G T C C G C T T T T C C C T T C G G G A A G C G T G G C G T T T T C T C A T A G C T C A C G C T G T A G G T A T
 ApaLI (3736)

3698 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 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 C T G C G C T T A T C C G G T A A C T A T C G T C T T G A G T
 3798 C C A A C C C 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 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 T G A A G T G
 3898 G T G G C T A A C T A C G G C T A C A C T A G A 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 A G T T A C C T T C G G A A A A G A G T T G G T A G C T C T T G A T C C G G C
 3998 A A C A A A C C A C C G C T G G T A G C G G T G T T T T T T G T T T G C A A G C A G A G A T T A C G C G C A G A 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 T C T A C G G
 PacI (4152) SwaI (4161) EagI (4172) NotI (4171)

4098 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 C 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 T A A A A T A T C T T T A T T T
 4198 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 C A A A C G A A C A A A C A A A C T A G C A A A A T A G G C T G T C C
 4298 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 C T A T C G A A