



100

PvuI (7)
SgfI (6)
MfeI (82) **EcoNI (96)**

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGTGGCGCGGGTAAACTGGAAAGTGATGCTGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
HindIII (245) **Bsu36I (291)**

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGACAGTGAAGCTTCGAGGGGCTCGCATCTCTCTTACACGGCCCGCCCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTGCCTTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
NgoMI (441)
NaeI (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCCTGACCCTGCTTGCTCAACTCTACGTCTTTGTTTCGTTT

KasI (535) **AgeI (552)** **BspHI (560)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACTCTGAGATCACGGTCATCATGAATCAACCAAATCGCTGCATCCCACCACACAGA
 1 M N S T K S P A S H H T E

EcoO109I (646)

601 GAGAGGATGCTTCAAAAACCTCCCAAGTGCTCTCCTGGACGATAGCCGGGCGCTCCATCCTGTTTCTCAGTGGCTGTTTCATCACCAGATGTGTGTAACA
 13 R G C F K N S Q V L S W T I A G A S I L F L S G C F I T R C V V T

SspI (745)

701 TATCGCAGCTCTCAAATTTCCGGGACAGAACTTACAGCCACATAGAAAATTAAGGAGCTTTCTGCTACAGTGAAGCATCAGGTTTCTCAGTCAAGAAATGCT
 47 Y R S S Q I S G Q N L Q P H R N I K E L S C Y S E A S G S V K N C

Tth111I (858)

801 GTCCTTTGAACTGGAAACATTATCAATCTAGTTGTTATTTTTCTCTACGACAACCTTGACCTGGTCATCAAGTTTAAAGAATTGCTCAGACATGGGGC
 80 C P L N W K H Y Q S S C Y F F S T T T L T W S S S L K N C S D M G A

DraIII (901)

901 TCACCTGGTGGTTATCGACACACAGGAAGAGCAGGAATTCCTTTTTTCGCACAAAACCTAAAAGGAAAGAGTTTATATTGGACTGACAGACCAGTGGTG
 113 H L V V I D T Q E E Q E F L F R T K P K R K E F Y I G L T D Q V V
 1001 GAGGTGAGTGGCAATGGGTGGATGATACACCTTTCACAGAGTCCCTGAGCTTCTGGGATGCTGGGGAGCCCAACAATATAGTTTGGTGGAGGACTGTG
 147 E G Q W Q W V D D T P F T E S L S F W D A G E P N N I V L V E D C
 1101 CCACCATAAGGGACTCTTCAAACCCAGGAAGAACTGGAATGATATACCTGTTTCTACAGTATGCCTTGGATTTGTGAGATGCCAGAAATAAGTCTCT
 180 A T I R D S S N S R K N W N D I P C F Y S M P W I C E M P E I S P L

MscI (1237)
BalI (1237)
NheI (1231)

1201 GGAATAAGTGAAGGAAATACAAGGACATGGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAA
 213 D •

HpaI (1369) **MfeI (1380)**

1301 AAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTCATTCATTTTATGT
 1401 TTCAGGTTTCAAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTCTAAAATACAGCATAGCAAACTTTAACCT
 1501 CCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCT
 1601 CTTTCATGGAGTTAAGATATAGTGATTTTTCCCAAGGTTGAACTAGCTCTTCAATTTCTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTAA

SspI (1704) **Swal (1718)**
EcoO109I (1779)

1701 GTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCC
 1801 AGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGGA
 1 N R T Y K L P I

SacI (1979)

1901 TGAGTTCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACA
 132 L E 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

BstXI (2008)

2001 GGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGAC
 99 P S 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

StuI (2143)
Eco147I (2143)

2101 CCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCC
 65 G I A 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

BspHI (2293)
XmnI (2285)

2201 CGACATGGTGTCTTGTCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTTCTCATGAT
 32 V H 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

VspI (2351)
AseI (2351)

2301 GGCCCTCTATAGTGAAGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTT

SacI (2408)
 2401 CACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGT

SpeI (2506)
 2501 TGATTTACTAGTCAAAACAAACTCCCATTGACGTCAATGGGGTGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGC

SnaBI (2634)
 Eco105I (2634)
 2600 CAAAACCGCATCATCATGGTAATAGCGTAGCTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGG

NdeI (2739)
 2700 GCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTG

2800 ACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCTTTGGGCGGTCAGCCAGGCGGGCCATTT

PstI (2918)
 SdaI (2917) PacI (2925) BspLU11I (2935)
 2900 ACCGTAAGTTATGTAACGCCTGCAGGTTAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTT

2998 TTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCC

3098 CTGGAAGCTCCCTCGTGCCTCTCTGTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGAAGCGTGGCGCTTTCTCATAGCTC

ApaLI (3249)
 3198 ACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAAC

3298 TATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAG

3398 AGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAG

3498 CTCTTGATCCGGCAAACAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTG

EagI (3685)
 PacI (3665) SmaI (3674) NotI (3684)
 3598 ATCTTTTCTACGGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAA

3698 AATATCTTTATTTTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACATAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCA

3798 AAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA