



125

PvuI (7)
SgfI (6) **EcoNI (96)**
1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGGAAAGTGTGCTGTACTGGCTCCGCCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** **EcoNI (287)**
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCCGCCCTACCTGAGGGC
301 GCCATCCACGCCGGTTGAGTCGCGTCTGCCGCCCTCCCGCTGTGGTGCCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMI (441) **NaeI (441)**
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGCTTTTGTTTCGTTT

NcoI (560)
BstEII (555) **AgeI (552)**
501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCTACCTGAGATCACCGTCACCATGGAGAGTGTGACCGGAAATGCTGTTGTTGACCGG
1 M E S E Y R E M L L L T G

XmnI (627) **ScaI (638)**
601 CCTGGACCACATCACGGAGGAAGAACTGAAACGGTTCAAGTACTTTGCTTTGACTGAGTTTCAGATTGCCAGGAGCACACTCGACGTCGAGATAGGACA
13 L D H I T E E E L K R F K Y F A L T E F Q I A R S T L D V A D R T

SspI (760) **Ppu10I (784)**
PstI (740) **AseI (757)** **NsiI (784)**
701 GAATTAGCTGACCACCTGATTCAAAGTGCAGGTGCGGCGTCTGCAAGTACCAAGCCATTAATATTTCCAGAAGTTGAATTATATGCATATTGCAAAATG
47 E L A D H L I Q S A G A A S A V T K A I N I F Q K L N Y M H I A N

BspHI (836)
801 CTCTTGAAGAGAAAAAGAAAGCTGAACTGAACTCATGACCAATAACAAGAAGAGAGAACACAGAAAGTAGAAAATAGAAGTCAAGCTGAAAAGCTG
80 A L E E K K K E A E R K L M T N T K K R G T Q K V E N R S Q A E N C
901 CTCTGCTGCTCTGCCACCCGAGTGACAATGACTTTAAGGAACAGGCTGTACAGAAGTCTGCTCAAGCTAAGCCTCAGAAGAAACAGATGGTGGCA
113 S A A S A T R S D N D F K E Q A A T E V C P Q A K P Q K K Q M V A

BpuAI (1094)
BbsI (1094)
1001 GAACAGGAAGCCATCAGAGAAGATTTACAGAAAGATCCACTTGTGTGTCACGGTGTGAAAGCTATAAATCCCTTTGAGTGTGAGACTCAGGAAGGAAGAC
147 E Q E A I R E D L Q K D P L V V T V L K A I N P F E C E T Q E G R

MscI (1121)
1101 AAGAGATATTTATGCAACAGTGGCCACCGAGACAGATTTTTCTTTGTAAGAGTTTAAACGCACAGTTTAAAGATAAATTTATCCAAAGAGACAAT
180 Q E I F H A T V A T E T D F F F V K V L N A Q F K D K F I P K R T I

BstEII (1239) **Psp1406I (1294)**
1201 TAAAATATCAAACCTTTGGCAGACGTAACCTCATGGAGTCCAGTTCCTCAGTGTGGTGTGATGTTGAATCTAACCCAGGTCACCAAAATAACGTT
213 K I S N Y L W H S N F M E V T S S S V V V D V E S N H E V P N N V
1301 GTTAAGAGAGCCAGGAAACTCCAGGATTAGTAACTGAAGATTCAGCCATGTGGAACAATGTGAATGGGCTGTTTAAAGTCCAGAAGATAACAGAGG
247 V K R A R E T P R I S K L K I Q P C G T I V N G L F K V Q K I T E

ScaI (1410) **Bst1107I (1421)**
1401 AAAAAGATAGAGTACTATGGTATACATGATAAAAACAGGGACAATGGAGGTGTGGTGTGCGGAAACCAAGCAAAACAAAGTGCAGGAGAGGAGACAA
280 E K D R V L Y G I H D K T G T M E V L V L G N P S K T K C E E G D K
1501 GATTAGACTCACGTTCTTTGAGGTGTCAAAAAATGGAGTGAATAATCAGTGAATCTGGACCTGTAGCTTTTTAAAGTTATTAAGGCTGCAAAAGCCA
313 I R L T F F E V S K N G V K I Q L K S G P C S F F K V I K A A K P

BamHI (1624) **NdeI (1664)**
1601 AAAACTGACATGAAAAGTGTGGAGGGATCCCTATCCCTATGATGTGCCAGACTATGCTGGCTATCCATATGATGTTCTGATTATGCTGGATACCCCTTATG
347 K T D M K S V E G S Y P Y D V P D Y A G Y P Y D V P D Y A G Y P Y

MscI (1727)
NheI (1721)
1701 ATGTGCCAGACTATGCCTAAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAACCCACAAGTGAATGCAAGTGAAGGAAATGCTTTA
380 D V P D Y A •

HpaI (1859)
1801 TTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACAAATGCATTCATTTATGTTTCAGGTTCA

EcoRI (1955)
1901 GGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAATGTGGTATGGAATCTAAAATACAGCATAGCAAACTTTAACTCCAATCAAG
2001 CCTCTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTCATGGA

SspI (2194)
2101 GTTTAAGATATAGTGATTTTCCCAAGGTTTGAAGTGTCTCTCATTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATAGTAAAATATT

SwaI (2208) **EcoO109I (2269)**
2201 CAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCCAGTTTAGTAG
2301 TTGGACTTAGGGAACAAGGAACCTTTAATAGAAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCCTGGTGTACTTGGAGGGGATGAGTCTCTC
141 • N R T Y K L P I L E E

SacI (2469) **Ecl136II (2469)** **BstXI (2498)**
2401 AATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCCAGGAGCATAGTCCAGAGTGTGCTCTGCACATGCCACAGGGGCTGACC
129 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
2501 ACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTCAAAGTCTTCTGCCCGTTGCTCAGCAGACCAATGGCAA
95 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 I

StuI (2633)

2601 TGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCCGACATGGT
62 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 H

BspHI (2783)
BpuAI (2779)
BbsI (2779)
XmnI (2775)

2701 CTTGTTGCTCATAGAGCATGGTATCTTCTCAGTGGCAGCTCCACAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTCCTA
29 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

SacI (2898)
Ecl136II (2898)

AseI (2841)

2801 TAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCTGGATGGCGTCTCCAGCTTATCTGACGGTTCACAAACGA

SpeI (2996)

2901 GCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTCGCTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTA

3001 GTCAAAACAAACTCCATTGACGTCAATGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGACTGCCAAACCGCAT

SnaBI (3124)

3101 CATCATGGTAATAGCGATGACTAATACGTAGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGACTGGGCATAATGCCAGCGGGCCATTTACCG

NdeI (3229)

3201 TCATTGACGTCAATAGGGGCGTACTTGGCATATGATACACTTGATGACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGA

3301 AAGTCCCTATTGGCGTTACTATGGGAACATACGTATTATTGACGTCAATGGGGGGGTCGTTGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTA

PacI (3415)

PstI (3408)
SdaI (3407)
SbfI (3407)

PciI (3425)
BspLU11I (3425)

3401 TGTAAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGAAAGCCAGGAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTCCATAGGCTCC

3501 GCCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAAGTCAAGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCTGGAAGCTCCCT

3601 CGTGCGCTCTCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTCTCCCTTCGGGAAGCGTGCCGCTTCTCATAGCTCACGCTGTAGGTAT

ApaLI (3739)

3701 CTCAGTTCGGTGTAGGTCTGTCCTCAAGCTGGGCTGTGTGCACGAACCCCGCTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGT

3801 CCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAAGTG

3901 GTGGCCTAACTACGGTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGC

4001 AAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTCTACGG

EagI (4175)
PacI (4155) SwaI (4164) **NotI (4174)**

4101 GGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCTAGTGAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTT

4201 TCATTACATCTGTGTGTTGTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCC

4301 CCAGTCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA