



100

PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)** **Bsu36I (291)**
PvuII (239) **EcoNI (287)**
201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGACAGACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMI (441)
NaeI (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

KasI (535) **BstEII (555)**
AgeI (552) **BsrGI (563)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATGTACAGGATGCAACTCCTGTCTTGCATTGCACTAAG
1 M Y R M Q L L S C I A L S

EcoRI (615) **StuI (638)**
Eco147I (638)
601 TCTTGCACTTGTCACGAATTCGCCGTCTGAACTGGAGAAGGCCTTGAGCAACCTCATTGATGTCTACCACAATTATCCAATATACAAGGAAATCACCAT
13 L A L V T N S P S E L E K A L S N L I D V Y H N Y S N I Q G N H H

XmnI (711)
701 GCCCTCTACAAGAAATGACTTCAAGAAAATGGTCACTACTGAGTGTCTCAGTTTGTGCGAGAATATAAATATCGAAAACCTGTTTCAAGAAATGGACATCA
47 A L Y K N D F K K M V T T E C P Q F V Q N I N I E N L F R E L D I

801 ATAGTGACAATGCAATTAACCTTCGAGGAGTTCCCTGCGATGGTATAAAAGTGGGTGTGGCATCTCACAAAGACAGCCACAAGGAGTAGCAGAGCTTCTG
80 N S D N A I N F E E F L A M V I K V G V A S H K D S H K E •

MscI (911)
NheI (905)
901 GCCTAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAAC TAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGA

HpaI (1043) MfeI (1054)
1001 TGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAAACAAGTTAAACAACAATTGCATTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGAG

EcoRI (1139)
1101 GTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTCAAATACAGCATAGCAAACCTTAACTCCAATCAAGCCTCTACTGAACTCT
1201 TTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGT

SspI (1378) **SwaI (1392)**
1301 ATTTTCCAAGGTTTGAAGTCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAATATTCAGAAATAATTTAAAT

EcoO109I (1453)
1401 ACATCATTGCAATGAAAAATAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACA
1501 AAGGAACCTTAAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACC
141 • N R T Y K L P I L E E I T T K V

SacI (1653) **BstXI (1682)**
1601 AGCTTGCCATTCATCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGT
123 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 R I S R D
1701 CCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGCTTGTCTCACAGCAGACCAATGGCAATGGCTTCAGCAGAC
90 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 E A C V

StuI (1817)
Eco147I (1817)
1801 AGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCACTTTGTCTGATGGCCGCCCGACATGGTGTCTGTTGCTCCATAG
57 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 N D E Y

BspHI (1967)
XmnI (1959)
1901 AGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGTCTTTCATGATGGCCCTCTATAGTGAGTCGTATTAT
23 L M T I K E T A V E V L E L D Q S I N F T K M

VspI (2025)
AseI (2025) **SacI (2082)**
2001 ACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTATCTGACGGTTCACAAACGAGCTCTGCTTATATAGA

SpeI (2180)
2101 CCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAACAAACTCC
2200 CATTGACGTCAATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGC

SnaBI (2308)
Eco105I (2308)
2300 GATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATA

2400 **NdeI (2413)**
GGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCG

2500 **PstI (2592)**
SdaI (2591)
TTACTATGGGAACATACGTCATTATTGACGTCAATGGCGGGGGTCGTTGGCGGTGTCAGCCAGCGGGCCATTACCGTAAGTTATGTAACGCC**TGCAG**

2599 **PacI (2599)** **BspLU11I (2609)**
G **TTAA** TTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGA

2698 GCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCT

2798 GTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGT

2898 **ApaLI (2923)**
AGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAG

2998 ACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTAC

3098 GGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCG

3198 CTGGTAGCGGTGGTTTTTTTTGTTTCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCA

3298 **EagI (3359)**
PacI (3339) **SwaI (3348)** **NotI (3358)**
GTGGAACGAAAAC**TACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC** AGCGGCCGCAATAAAATATCTTTATTTT**CATTACATCTGT**

3398 GTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGC

3498 AGGTGCCAGAACATTTCTCTATCGAA