



100

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

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** EcoNI (287)
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGGCC
301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441) **NaeI (441)**
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

KasI (535) **AgeI (552)** **BspLU11I (560)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCAACATGTGCGCGTCCGGTAGTGTCTGTCATTTCCGCGTTCTT
1 M S A S V V S V I S R F L

ScaI (605) **MluI (644)** **PstI (679)**
601 AGAAGAGTACTTTGAGCTCCACTCCGAGCGTCTGAAGTTGCTGGACGCGTACCTGCTGTATATACTGCTGACCGGGGCGTGCAGTTCGGTTACTGTCTC
13 E E Y L S S T P Q R L K L L D A Y L L Y I L L T G A L Q F G Y C L
701 CTCGTGGGACCTTCCCTTCAACTCTTTCTCTCGGGCTTCATCTCTGTGTGGGAGTTTCATCCTAGCGGTTTCCCTGAGAATACAGATCAACCCAC
47 L V G T F P F N S F L S G F I S C V G S F I L A V C L R I Q I N P

EcoO109I (706) **BspHI (884)**
801 AGAACAAAGCGGATTTCCAAGGCATCTCCCAGAGCGAGCCTTTGCTGATTTTCTTTGCCAGCACCATCCTGCACCTGTTGTGATGAACCTTTGTTGG
80 Q N K A D F Q G I S P E R A F A D F L F A S T I L H L V V M N F V G

MscI (922) **NheI (916)**
901 CTGACTCATTCTCATTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGCAGTGAATAAATGCTTTATTTGT
113 •

HpaI (1054) **MfeI (1065)**
1001 GAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAAACAAGTTAAACAACAATTCATTCTTTATGTTTCAGGTTTCAGGGGG

EcoRI (1150)
1101 AGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCATAAATACAGCATAGCAAACCTTAACTCCAATCAAGCCTCT
1201 ACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTA

SspI (1389)
1301 AGATATAGTGTATTTTCCAAGGTTTGAAGTAGCTCTTCAATTTCTTTATGTTTTAAATGACTGACCTCCACATTCCCTTTTAGTAAATATTTCAGAA

SwaI (1403) **EcoO109I (1464)**
1401 ATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGA
1501 CTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGATGAGTTTCCCTCAATGG
1 N R T Y K L P I L E E I T

BstXI (1693)
1601 TGGTTTTGACCAGCTTGCCATTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGACATGCCACAGGGGCTGACCACCT
127 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 R
1701 GATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCGGTTGCTCACAGCAGACCCAATGGCAATGGCT
94 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

StuI (1828)
1801 TCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCCGACATGGTGTCTGT
60 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 N

BspHI (1978) **BbsI (1974)** **XmnI (1970)**
1901 TGTCTCATAGAGCATGGTGTCTCTCAGTGGCGACCTCCACCAGTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTCCTATAGTG
27 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

AseI (2036)
2001 AGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTATCTGACGGTTCACTAAACGAGCTCT

SpeI (2191)
2101 GCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCCTTGTATTTACTAGTCA
2200 AAACAAACTCCCATTTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCCTATCCACGCCCATTTGATGTAAGTCCAAACCGCATCATC

SnaBI (2319)
2300 ATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCAGTAGGAAAGTCCATAAGGTCATGTAAGTGGGATAATGCCAGGCGGGCCATTTACCGTCAT

NdeI (2424)

2400 TGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGT

2500 CCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTA

PstI (2603)
SdaI (2602) PacI (2610) BspLU11I (2620)

2600 ACGCCTGCAGGTTAA TTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGC

2698 CCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCG

2798 TGGCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGAAGCGTGGCGCTTCTCATAGCTCAGCTGTAGGTATCT

ApaLI (2934)

2898 CAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGGTTAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCC

2998 AACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTTCTTGAAGTGGT

3098 GGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGA AAAAGAGTTGGTAGCTCTTGATCCGGCAA

3198 ACAAAACCCGCTGGTAGCGGTGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGG

PacI (3350) SwaI (3359) **EagI (3370)**
NotI (3369)

3298 TCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCCAATAAAATATCTTTATTTTC

3398 ATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAAACAAAACGAAAACAAAACAACTAGCAAAATAGGCTGTCCCC

3498 AGTGCAAGTGCAGGTGCCAGAACATTTCTATCGAA