



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGCTGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) Bsu36I (291)
Psp1406I (203) PvuII (239) EcoNI (287)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTGCCTGCTGCCGCTCCCGCCTGTGGTGCCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTGGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

KasI (535) **AgeI (552)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCTAGCCTGAGATCACCGGTCATCATGAACGCTACACACTGCATCTTGGCTTTGCAGCTCTT
601 CCTCATGGCTGTTTCTGGCTGTTACTGCCACGGCACAGTCATTGAAAGCTAGAAAGTCTGAATAACTATTTAACTCAAGTGGCATAGATGTGGAAGAA
13▶ L M A V S G C Y C H G T V I E S L E S L N N Y F N S S G I D V E E

EcoRV (715) **PstI (757)**
701 AAGAGTCTCTTGGATATCTGGAGAACTGGCAAAAGGATGGTACATGAAATCCTGCAGAGCCAGATTATCTTTTCTACCTCAGACTCTTTGAAG
47▶ K S L F L D I W R N W Q K D G D M K I L Q S Q I I S F Y L R L F E

NsiI (893)
801 TCTTAAAAGACAATCAGGCCATCAGCAACAACATAAGCGTCATTGAATCACACCTGATTACTACCTTCTCAGCAACAGCAAGGCCAAAAAGGATGCATT
80▶ V L K D N Q A I S N N I S V I E S H L I T T F F S N S K A K K D A F

PvuII (979) Bsu36I (999)
901 CATGAGTATTGCCAAGTTTGAGGTCAACAACCCACAGGTCCAGCGCAAGCATTCAATGAGCTCATCCGAGTGGTCCACCAGCTGTTGCCGGAATCCAGC
113▶ M S I A K F E V N N P Q V Q R Q A F N E L I R V V H Q L L P E S S

MscI (1069) **NheI (1063)**
1001 CTCAGGAAGCGGAAAAGGAGTGCCTGCTGATTCGGGGTGGGAAGAGATTGTCCAATAAGAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGT
147▶ L R K R K R S R C •

1101 TTGGCAAACCAACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACA

HpaI (1201) MfeI (1212) **EcoRI (1297)**
1201 AGTTAAACAACAACATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAA
1301 TTCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGC
1401 CAATGTGCATTAGCTGTTTGAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGATTTTCCCAAGGTTTGAAGTCTTTCATTTCTTTATGTTT

SspI (1536) **SwaI (1550)**
1501 TAAATGCACTGACCTCCACATTCCCTTTTAGTAAAAATTCAGAAAATATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAAT

EcoO109I (1611)
1601 CCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAGGAACCTTAAATAGAAATGGACAGCAAGAAAGCGAGCTT
1701 CTAGCTTTAGTTCCTGGTACTTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTTCATCTCAATGAGCACAAGCAGTCCAGGAGCA
141▶ N R T Y K L P I L E E I T T K V L K G N M E I L V F C D P A

BstXI (1840)
1801 TAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGT
109▶ Y D S I L E R C M G C P S V V R I S R D V E D S Y P H R V A V I T D

StuI (1975)
1901 CAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGAT
76▶ F D K Q G N S V A S G I A I A E A C V T V R G I Y A E I H V A S I
2001 GATCTCCCGAGTCTTGGTCTGATGGCCGCCCGACATGGTGTGTTGTCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGA
43▶ I E G T K T R I A A G V H H K N D E Y L M T I K E T A V E V L E L

BbsI (2121) **XmnI (2117)** **AseI (2183)**
2101 TCCTGCTGAGAGATGTTGAAGGCTTCATGATGGCCCTCCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAG
9▶ D Q Q S I N F T K M

2201 CGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCACCCTACAGCCTACCGCCATTTCGCTCAATGGGG

SpeI (2338)
2301 CGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCAATGGGTGGAGACTTGAAATCCCCGTGAGT

SnaBI (2466)
2400 CAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCCA

NdeI (2571)
2500 TAAGGTCATGTAAGTGGCATAATGCCAGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTAAGTCCCAAG
2600 TGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAATATTGACGTCAATGGGGGGG

PstI (2750)
SdaI (2749) PacI (2757) **BspLU11I (2767)**

2700 GGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACGTAAGTTATGTAAC**GCTGCAGGTTAA**TTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCA
 2798 GGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAGAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCC
 2898 GACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCTC
 2998 CCTTCGGGAAGCGTGGCGCTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGG **ApaLI (3081)**
 3098 TTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGAT
 3198 TAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTG
 3298 AAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGC
 3398 GCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAAACTCACGTTAAGGGATTTTGGTCATGGCTAG

EagI (3517)

PacI (3497) SwaI (3506) **NotI (3516)**

3498 TTAATTAACATTTAAATC **AGCGCCGCA**ATAAAATATCTTTATTTTCATTACATCTGTGTGGTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCC
 3598 ATCAAAACAAAACGAAACAAAACAAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA