



125

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

Psp1406I (203) **PvuII (239)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGGCC
301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAACTGCGTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMI (441) NaeI (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

KasI (535) **BspEI (558)** NcoI (566)
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCCCTACCTGAGATCACCGGCTCCGGACACCATGGGACTCCTGCTTCTGGAAGGAAAAGAAC
1 M G T P A S G R K R T

XmaI (689) **SrfI (688)**
601 ACCTGTGAAAGACCGATTTTCTGCAGAAGTGAAGCTTTGAGTAACTTCCAGAGAGGCAGAGGCAAGGCTGGCAGCAAAACGGGCTGCCCGGGCAGAA
11 P V K D R F S A E D E A L S N I A R E A E A R L A A K R A A R A E
701 GCAAGAGATATCGCATGAGAGAAGTGAACGACAACAAAAAGAGTTGGATGAAAAATCTGACAAACAGTATGCTGAAAAATTACAAGACCTTCATCTC
45 A R D I R M R E L E R Q Q K E L D E K S D K Q Y A E N Y T R P S S
801 GAAATTCTGCCTCAGCAACAACCCCTCTAAGTGGAAACTCATCCAGACGAGGAAGTGGGGACACCAGCAGCTTAATAGATCCAGACACTTCATTAAGTGA
78 R N S A S A T T P L S G N S S R R G S G D T S S L I D P D T S L S E

EcoRV (907)
901 ATTGCGGATATCTATGACCTTAAGGACAGATACAGGATGTAGAAGGGAGATACATGCAGGGGCTTAAAGAATAAGGAATCTTTGTCTGAAGTGAA
111 L R D I Y D L K D Q I Q D V E G R Y M Q G L K E L K E S L S E V E

NcoI (1016) NdeI (1168)
1001 GAAAAATACAAGAAAGCCATGGTTTCCAATGCAAGCTTAGACAATGAGAAGAACAATTTGATCTACCAAGTAGACACACTCAAGGATGTTATTGAAGAGC
145 E K Y K K A M V S N A Q L D N E K N N L I Y Q V D T L K D V I E E

StuI (1212) BspHI (1293)
1101 AGGAGAACAGATGGCAGAATTTATAGAGAAAATGAAGAAAATCAAAGGAGTTAGAAAAGCCAGAAACATATGTGTAGTGTGCTGCAGCATAAGATGGA
178 Q E E Q M A E F Y R E N E E K S K E L E R Q K H M C S V L Q H K M E
1201 AGAACTTAAAGAAGGCTCGCGCAAGAGATGAGCTTATTGAGAAACATGGCTTAGTTATAATCCCCGATGGCACTCCCAATGGTGATGTCAGTCATGAA
211 E L K E G L R Q R D E L I E K H G L V I I P D G T P N G D V S H E
1301 CCAGTGGCTGGAGCCATCACTGTTGTGTCTCAGGAAGCTGCTCAGGTCTGGAGTCAGCAGGAGAAGGGCCATTAGATGTAAGGCTACGAAAACCTTGCTG
245 P V A G A I T V V S Q E A A Q V L E S A G E G P L D V R L R K L A

BstEII (1492)
1401 GAGAGAAGGAAGAACTACTGTACAGATTAGAAAACTGAAGCTTCAGTTAGAGGAGGAACGACAGAAATGCTCCAGGAATGATGGCACAGTGGGTGACCT
278 G E K E E L L S Q I R K L K L Q L E E E R Q K C S R N D G T V G D L
1501 GGCAGGACTGCAGAAATGGCTCAGACTTGCAGTTTCAGAAATGCAGAGAGATGCCAATAGACAAATTAGCGAATACAAATTTAAGCTTTCAAAAGCAGAA
311 A G L Q N G S D L Q F I E M Q R D A N R Q I S E Y K F K L S K A E

NgoMI (1631) NaeI (1631)
1601 CAGGATATAACTACCTTGAGCAAAAGTATTAGCCGGCTTGAGGACAGGTTCTGAGATATAAACTGCTGCTGAGAATGCTGAGAAAGTTGAAGATGAAT
345 Q D I T T L E Q S I S R L E G Q V L R Y K T A A E N A E K V E D E

XcmI (1772) **MscI (1784)** **BstXI (1787)**
1701 TGAAGCAGAAAAACGGAAGCTACAACGAGAGTTACGAACAGCACTGGACAAGATTGAGGAGATGGAGATGACCAACAGCCACCTGGCCAAGCGGCTGGA
378 L K A E K R K L Q R E L R T A L D K I E E M E M T N S H L A K R L E

MscI (1867) **NheI (1861)**
1801 GAAGATGAAGCCAAATAGACAGCACTTCTGGCCAGCAGTAGGAAAACACCCTTCAACCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTT
411 K M K A N R T A L L A Q Q •

HpaI (1999)
1901 GGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAAG

MfeI (2010) **EcoRI (2095)**
2001 TTAACAACAACAATTGCATTCTTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATT
2101 CTAATAACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGCTGTTGCCA
2201 ATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTCATGGAGTTAAGATATAGTGATTTTCCCAAGGTTTGAAGTAGCTCTTCAATTTCTTTATGTTTAA

SspI (2334) **Swal (2348)**
2301 AATGCACTGACCTCCACATTCCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCC

EcoO109I (2409)
2401 AGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGAAGCAAAAGGAACCTTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCT

2501 AGCTTTAGTTCCTGGTACTTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATGAGCACAAAGCAGTCAGGAGCATA
 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 Y
 SacI (2609) BstXI (2638)
 2601 GTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCA
 109 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 (2773)
 2701 AAGTCCCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGA
 75 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 I
 2801 TCTCCCCAGTCTTGGTCCGTGATGGCCGCCCGACATGGTGCTTGTCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATC
 42 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 D
 BspHI (2923) XmnI (2915) VspI (2981) AseI (2981)
 2901 CTGCTGAGAGATGTTGAAGGTCTTCATGATGGCCCTCCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCG
 9 Q Q S I N F T K M
 SacI (3038)
 3001 TGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGC
 SpeI (3136)
 3100 GGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTC
 SnaBI (3264) Eco105I (3264)
 3199 AAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCAT
 NdeI (3369)
 3299 AAGGTCATGTACTGGCATAATGCCAGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTGCCAAGT
 3399 GGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCAATTATTGACGTCAATGGCGGGG
 PciI (3565) SdaI (3547) PaeI (3555) BspLU11I (3565)
 3499 GTCGTTGGCGGTGAGCCAGCGGGCCATTTACCGTAAGTTATGTAACGCTG C A G G T T A A T T A A G A A C A T G T G A G C A A A A G G C C A G A A A G G C C A G
 3597 GAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCG
 3697 ACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCGACCCTGCCGTTACCGGATACCTGTCCGCCTTTCTCC
 ApaLI (3879)
 3797 CTTCCGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGT
 3897 TCAGCCCCACCGCTGCGCCTTATCCGGTAACTATCGTCTTGTAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATT
 3997 AGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAAGTATTTGGTATCTGCGCTCTGCTGA
 4097 AGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTTTGATCCGGCAAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGGC
 PacI (4295)
 4197 CAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGT
 EagI (4315) SwaI (4304) NotI (4314)
 4297 TAATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCC
 4396 ATCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA