



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

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** EcoNI (287)
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACACGCCGCCGCCCTACCTGAGGCC
301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCCTGTGGTGCTCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

KasI (535) **AgeI (552)** **NcoI (568)**
501 TCTGTTTGTCCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTAGGAGGGCCACCATGGAATATCATCTGATTTAGAAAATTTG
1 M E Y H P D L E N L

KasI (697)
601 GATGAAGATGGATATACTCAATTACACTTCGACTCTCAAAGCAATACCAGGATAGCTGTTGTTTCAGAGAAAGGATCGTGTGCTGCATCTCCTCCTTGGC
11 D E D G Y T Q L H F D S Q S N T R I A V V S E K G S C A A S P P W

NcoI (766)
701 GCCTCATTGCTGTAATTTGGGAATCCTATGCTTGGAATACTGGTGATAGCTGTGGTCTGGGTACCATGGGGTTCTTTCCAGCCCTTGCCTCCTAA
44 R L I A V I L G I L C L V I L V I A V V L G T M G V L S S P C P P N

SapI (815)
801 TTGGATTATATAGAGAAGCTGTTATCTATTGAGCAGTGTCACTAAATTCCTGGGATGGAAGTAAAGACAATGCTGGCACTGGGCTTAATCTCCTA
77 W I I Y E K S C Y L F S M S L N S W D G S K R Q C W Q L G S N L L

BbsI (944) **StuI (974)** **Acc65I (998)**
901 AAGATAGACAGCTCAAATGAATTGGGATTTATAGTAAACAAGTGTCTCCCAACCTGATAATTCATTTTGGATAGGCCCTTCTCGGCCCCAGACTGAGG
111 K I D S S N E L G F I V K Q V S S Q P D N S F W I G L S R P Q T E

BstXI (1002) **NcoI (1002)** **XcmI (1083)**
1001 TACCATGGCTCTGGGAGGATGGATCAACATTCTCTTAACTTATTTGAGATCAGAACCACAGCTACCCAAGAAAACCCATCTCAAATTTGTGTATGGAT
144 V P W L W E D G S T F S S N L F Q I R T T A T Q E N P S P N C V W I

BbrPI (1101)
1101 TCACGTGTGAGTCAATTTATGACCAACTGTGAGTGTGCCCTCATATAGTATTTGTGAGAAGAAGTTTTCAATGTAAGGGGAAGGGTGGAGAAGGAGAGAG
177 H V S V I Y D Q L C S V P S Y S I C E K K F S M •

MscI (1216) **NheI (1210)**
1201 AAATATGTGAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATT

HpaI (1348) **MfeI (1359)**
1301 TGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAAACAAGTTAAACAACAACAATTGCATTCTTTTATGTTTCAGGTTCCAGGGGAGGTGT

EcoRI (1444)
1401 GGGAGGTTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTCAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGA
1501 ATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTTCATGGAGTTAAGATAT

SapI (1626) **SspI (1683)** **SwaI (1697)**
1601 AGTGTATTTTCCCAAGGTTTGAAGTCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTGTAGTAAATATTCAGAAATAAT

EcoO109I (1758)
1701 TAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTGTAGTGGACTTAGG
1801 GAACAAAGGAACCTTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGGGGGATGAGTTCCTCAATGGTGGTTT
141 • N R T Y K L P I L E E I T T K

SacI (1958) **BstXI (1987)**
1901 TGACCAGCTTGCCATTCTCAATGAGCACAAGCAGTCAAGGATGATGAGTCTCTGACATGCCACAGGGGCTGACCACCTGTAGGA
125 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 I S
2001 TCTGTCCACTCATCAGAGTAGGGTGCCTGACAGCACAATGGTGTCAAAGTCTTCTGCCCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCA
92 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 E A

StuI (2122)
2101 CAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCACTTGGTCTGTGATGGCCGCCCGACATGGTGTGTTGTCCT
58 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 D E

BbsI (2268) **XmnI (2264)**
2201 CATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCTATAGTGAAGTCGT
25 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 (2330) **SacI (2387)**
2301 ATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTIATCTGACGGTCACTAAACGAGCTCTGCTTAT

2401 ATAGACCTCCCACGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCC GTT GATT **SpeI (2485)**
2501 CTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAA

SnaBI (2613)
2601 TAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAAGTCCATAAGGTCATGTACTGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTC

NdeI (2718)
2701 AATAGGGGGCGTACTTGGCATATGATACACTTGTGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATT

PstI (2897)
SdaI (2896)
2801 GGC GTTACTATGGGAACATACGTCATTATTGACGTCAATGGGGGGGGTCTTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTG

PacI (2904) **BspLU11I (2914)**
2901 CAGGTTAAIT **TAAGAACATGTGAGCAAAAGGCCAGGAAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTTCATAGGCTCCGCCCCCTGAC**
3001 GAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTC

ApaLI (3228)
3101 CTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGT

3201 GTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTA

3301 AGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACT

3401 ACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCAC

3501 CGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCT

EagI (3664)
PacI (3644) **SwaI (3653)** **NotI (3663)**
3601 CAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC **AGCGGCCG**CAATAAAATATCTTTATTTTCATTACATCT

3701 GTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGT

3801 GCAGGTGCCAGAACATTTCTCTATCGAA