



PvuI (7)
SgfI (6) 1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA MfeI (82) EcoNI (96)

101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCCTGTGGTGCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTGGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

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)**

Acc65I (762)
701 GCCTCATTGCTGTAATTTGGGAATCCTATGCTTGGAATACTGGTGATAGCTGTGGTCTGGGTACCATGGGGTCTTTCCAGCCCTTGCCTCCTAA 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 TCACGTGTCAGTCATTTATGACCAACTGTGTAGTGTGCCCTCATATAGTATTTGTGAGAAGAAGTTTTCAATGTAAGGGGAAGGGTGGAGAAGGAGAGAG 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 AAATATGTGAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAAC TAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATT

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

EcoRI (1444)
1401 GGGAGGTTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTCAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGA
1501 ATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAGATAT

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

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

SacI (1958) **BstXI (1987)**
1901 TGACCAGCTTGCCATTCATCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGTCACATGCCACAGGGGCTGACCACCTGTAGGA 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 TCTGTCCACTCATCAGATAGGGGTGCCGTGACAGCACAATGGTGTCAAAGTCTTCTGCCCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCA 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 CAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCACTTGGTCTGTATGGCCGCCCGACATGGTGTGTTGTCCT 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 CATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCTATAGTGAGTCGT 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 ATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTIATCTGACGGTTCATAAACGAGCTCTGCTTAT

SpeI (2485)

2401 ATAGACCTCCCACGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCC GTT GATTACTAGTCAAAAACAAA

2501 CTCCCATTGACGTCAATGGGGTGGAGACTTGAAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAA

SnaBI (2613)

2601 TAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAAGTCCATAAGGTCATGTACTGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTC

NdeI (2718)

2701 AATAGGGGGCGTACTTGGCATATGATACACTTGTGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATT

PstI (2897)

SdaI (2896)

2801 GGC GTTACTATGGGAACATACGTCATTATTGACGTCAATGGGGGGGGTCTGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTG

PacI (2904)

BspLU11I (2914)

2901 CAGGTTAAITAAAGAACATGTGAGCAAAAAGGCCAGGAAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTTCATAGGCTCCGCCCCCTGAC

3001 GAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTC

3101 CTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGT

ApaLI (3228)

3201 GTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTA

3301 AGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACT

3401 ACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCAC

3501 CGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCT

EagI (3664)

PacI (3644)

SwaI (3653)

NotI (3663)

3601 CAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCT

3701 GTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGT

3801 GCAGGTGCCAGAACATTTCTCTATCGAA