



PvuI (7)
SgfI (6)
MfeI (82)

1 GGATCTGCATCGCTCCGGTGCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTCCGCAATTGAACGGGTGCCTA

101 GAGAAAGTGGCGCGGGTAAACTGGAAAAGTGTGCTGTACTGGCTCCGCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)

Psp1406I (203)
PvuII (239)
Bsu36I (291)

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACCGCGCCGCCCTACCTGAGGCC

301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCCTGACCTGCTTCTCAACTCTACGCTTTTGTTCGTTT

BsaBI (567)

AgeI (552) **SphI (560)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCAGCATGCCGATGTTTCATCGTAAACACCAACGTGCCCCGCGC

1▶ M P M F I V N T N V P R A

BbrPI (682)

PvuII (637)
ApaLI (679)

601 CTCGTCGCCGACGGGTTCTCTCCGAGCTCACCCAGCAGTGGCGCAGGCCACCGGCAAGCCCCCAGTACATCGCGGTGCACGTGGTCCCGACCAG

13▶ S V P D G F L S E L T Q Q L A Q A T G K P P Q Y I A V H V V P D Q

PstI (738)
BsrBI (780)

701 CTCATGGCCTTCGGCGGCTCCAGCGAGCCGTGCGCGCTCTGCAGCCTGCACAGCATCGGCAAGATCGGCGGCGCGCAGAACCCTCTACAGCAAGCTGC

47▶ L M A F G G S S E P C A L C S L H S I G K I G G A Q N R S Y S K L

FspI (824)
Tth111I (838)

801 TGTGCGCCTGTGGCCGAGCGCCTGCGCATCAGCCCCGACAGGGTCTACATCAACTATTACGACATGAACGCGCCAATGTGGGCTGGAACAACTCCAC

80▶ L C G L L A E R L R I S P D R V Y I N Y Y D M N A A N V G W N N S T

SauI (918) **NheI (927)**
EcoO109I (918)
MscI (933)

901 CTTGCGCTAAGAGCCGACGGGACCCACGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAAT

113▶ F A •

HpaI (1065)
MfeI (1076)

1001 GCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACCAATTGCATTCATTTATGTTCA

EcoRI (1161)

1101 GGTTACAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACCTTAACTCCAA

1201 ATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTT

SapI (1343)

1301 CATGGAGTTAAGATATAGTGTATTTTCCCAAGGTTTGAAGTACTCTTTCATTTCTTTATGTTTTAAATGCACCTGACCTCCACATTCCTTTTATGTA

SspI (1400)
SwaI (1414)
EcoO109I (1475)

1401 AATATTCAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTCATAATATCCCCAGTT

1501 TAGTAGTTGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGGATGAG

141◀ • N R T Y K L P I L

1601 TTCCTCAATGGTGGTTTTGACCAGTTGCCATTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGACATGCCACAGGG

131◀ E E I T 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

BstXI (1704)

1701 CTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCCCTTCTGCCCGTTGCTCACAGCAGACCCAA

97▶ S V V R 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

StuI (1839)

1801 TGGCAATGGCTCAGCACAGACAGTACCCCTGCCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCACTTGGTCTGATGGCCGCCCGAC

64▶ A I A 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

BbsI (1985)

XmnI (1981)

1901 ATGGTCTTGTGCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTCTCATGGTGGCC

31◀ H H K N 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 (2047)

2001 CTCCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACT

2101 AAACGAGCTCTGTTATATAGACCTCCACCGTACACGCTACCGCCATTTCGCTCAATGGGGCGGAGTTGTTACGACATTTTGAAGTCCCGTTGAT

SpeI (2202)

2201 TTACTAGTCAAAACAACTCCATTGACGTCAATGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAA

SnaBI (2330)

2301 CCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCAT

NdeI (2435)

2401 TTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTC

2501 AATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGT

PacI (2621)

PstI (2614)

SdaI (2613)

BspLU11I (2631)

2601 AAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGCTGGCGTTTTCCATA

2701 GGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAGATACCAGGCGTTTCCCCTGGAAG

2801 CTCCCTCGTGGCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGT

ApaLI (2945)

2901 AGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTC

3001 TTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTT

3101 GAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGA

3201 TCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTT

EagI (3381)

PacI (3361) SwaI (3370) NotI (3380)

3301 CTACGGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCT

3401 TTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGG

3501 CTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA