



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

1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGTGCTGTACTGGCTCCGCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)

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

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACCGCGCCGCCCTACCTGAGGCC

301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCTGTGGTGCCTCCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCAGCTTTGCCTGACCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

BstEII (555)

AgeI (552) **NcoI (560)**

501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCACCATGGATGAGCAATCACAAGGAATGCAAGGGCCACCTGT

StuI (620)
BstBI (662)
1 ▶ M D E Q S Q G M Q G P P V

601 TCCTCAGTTCCAACCACAGAAGGCCTTACGACCGGATATGGGCTATAATACATTAGCCAACCTTTCGAATAGAAAAGAAAATTGGTCGCGGACAATTTAGT

13▶ P Q F Q P Q K A L R P D M G Y N T L A N F R I E K K I G R G Q F S

BbrPI (785)

701 GAAGTTTATAGAGCAGCCTGTCTCTGGATGGAGTACAGTAGCTTTAAAAAAGTGCAGATATTTGATTTAATGGATGCCAAAGCAGCTGCTGATTGCA

47▶ E V Y R A A C L L D G V P V A L K K V Q I F D L M D A K A R A D C

BglII (810) **SspI (848)**

801 TCAAAGAAATAGATCTTCTTAAGCAACTCAACCATCCAATGTAATAAAATATTATGCATCATTGATTGAAGATAATGAACAAACATAGTTTTGGAAGT

80▶ I K E I D L L K Q L N H P N V I K Y Y A S F I E D N E L N I V L E L

901 AGCAGATGCTGGCGACCTATCCAGAATGATCAAGCATTTTAAAGCAAAAGAGGCTAATTCCTGAAAGAACTGTTTGAAGTATTTTGTTCAGCTTTGC

113▶ A D A G D L S R M I K H F K K Q K R L I P E R T V W K Y F V Q L C

BstXI (1073) **BglII (1095)**

1001 AGTGCATTGGAACACATGCATTCTCGAAGAGTCATGCATAGAGATATAAAACCAGCTAATGTGTTTATTACAGCCACTGGGGTGGTAAAACCTGGAGATC

147▶ S A L E H M H S R R V M H R D I K P A N V F I T A T G V V K L G D

PvuII (1133) **BspLU11I (1166)**

1101 TTGGGCTTGCCGGTTTTTTCAGCTCAAAAACACAGCTGCACATTCTTTAGTTGGTACGCCTTATTACATGTCTCCAGAGAGAATACATGAAAATGGATA

180▶ L G L G R F F S S K T T A A H S L V G T P Y Y M S P E R I H E N G Y

1201 CAACCTCAAATCTGACATCTGGTCTCTTGGCTCTACTATATGAGATGGCTGCATTACAAAAGTCTTTCTATGGTGACAAAATGAATTTATACTCACTG

213▶ N F K S D I W S L G C L L Y E M A A L Q S P F Y G D K M N L Y S L

1301 TGTAAGAAGATAGAACAGTGTGACTACCCACCTCTTCTTCAGATCACTATTGAGAAGAACTCCGACAGTTAGTTAATATGTGCATCAACCCAGATCCAG

247▶ C K K I E Q C D Y P P L P S D H Y S E E L R Q L V N M C I N P D P

NheI (1487)

BstAPI (1450) **BspHI [m] (1479)** **MscI (1493)**

1401 AGAAGCGACCAGACGTCACCTATGTTTATGACGTAGCAAAGAGATGCATGCATGCAAGCAGCTAAACATGCAAGATCATGCTAGCTGGCCAG

280▶ E K R P D V T Y V Y D V A K R M H A C T T A S S •

1501 ACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGT

HpaI (1625) **MfeI (1636)**

1601 AACCATTAAGCTGCAATAAACAAGTTAAACAACAACATGCATTCATTTTATGTTTCAGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAA

EcoRI (1721)

1701 AACCTCTACAATGTGGTATGGAATCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAA

1801 GGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTCATGGAGTTAAGATATAGTGTATTTTCCAAGGTTTGA

SapI (1903)
SspI (1960)
SwaI (1974)

1901 CTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAATATTCAGAAAATAATTTAAATACATCATTGCAATGAAAA

EcoO109I (2035)

2001 TAAATGTTTTTTATTAGGAGAATCCAGATGCTCAAGGCCCTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTAAATAGAA

2101 ATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCA

141 ▶ • N R T Y K L P I L E E I T T K V L K G N M E
SacI (2235)
BstXI (2264)

2201 ATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGG

117▶ 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 R D V E D S Y P

StuI (2399)

2301 GGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTACCTGCCAATGTA

84▶ 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 C V T V R G I Y

2401 GGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTTGTCTCATAGAGCATGGTGATCTTCTCA
51 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 Y L M T I K E

BbsI (2545)

2501 GTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTAT
17 T A V E V L E L D Q Q S I N F T K M

XmnI (2541)

2601 GCCGATGATTAATTGTCAAACACGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCATAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCC
AseI (2607) SacI (2664)

2701 TACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCAATGGGGTG
SpeI (2762)

2801 GAGACTTGAAATCCCCGTGAGTCAAACCGTATCCACGCCATTGATGTA CTGACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATG
SnaBI (2890)

2901 TACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATAT
NdeI (2995)

3001 GATACACTTGATGTA CTGCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTACTATGGGAACATACGT

PacI (3181)

3101 CATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTGAG
PstI (3174) SdaI (3173) BspLU11I (3191)

3201 CAAAAGGCCAGCAAAAGGCCAGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTC

3301 AAGTCAGAGGTGGCAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCGTCTCCTGTTCCGACCTGCCGCTTACC

3401 GGATACCTGTCCGCTTTCTCCCTTCGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGTTCCGCTCAAGCTGG

ApaLI (3505)

3501 GCTGTGTGCACGAACCCCGTTCAGCCGACCGTGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGC

3601 AGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTA

3701 TTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTG

3801 TTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTA

EagI (3941)

PacI (3921) SmaI (3930) NotI (3940)

3901 AGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAAT

4001 CGTAACTAACATACGCTCTCCATCAAAAACAAAACGAAAACAAAACAACTAGCAAATAGGCTGTCCCGAGTGAAGTGCAGGTGCCAGAACATTTCTCTA

4101 TCGAA