



PvuI (7)
SgfI (6)
MfeI (82) **EcoNI (96)**

1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGCGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA

101 GAGAAGGTGGCGGGGTAAGTGGGAAAGTGTGTCGTGACTGGCTCCGCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGTGAAGCTTCAGAGGGCTCGCATCTCTCCTTACAGCGCCCGCCGCCCTACCTGAGGCC

301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCCTCCCGCCTGTGGTGCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMI (441)
NaeI (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

SphI (564)
Ppu10I (562)
SphI (560)
NsiI (562)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTGAGTGCATGCGGAAGAAATATATACCTCTCTTCAGTGGGA

1▶ M H A E E I Y T S L Q W D

StuI (614)
Eco147I (614)

601 CATTCTACCTCAGAGGCCCTCTCAGAAGTGCCAATCCCCTAGCAAATGTTCCAGGAGCATGGTGTGTTGTGACGATGATTTCTGTGTGGTCTGTATGGGC

13▶ I P T S E A S Q K C Q S P S K C S G A W C V V T M I S C V V C M G

701 TTGTTAGCAACGTCCATTTTCTGGGCATCAAGTTCTTCCAGGTATCCTCTCTTGTCTTGGAGCAGCAGGAAAGACTCATCCAACAGGACACAGCATTGG

47▶ L L A T S I F L G I K F F Q V S S L V L E Q Q E R L I Q Q D T A L

BglII (859)

801 TGAACCTTACACAGTGGCAGAGGAAATACACACTGGAATACTGCCAAGCCTTACTGCAGAGATCTCTCCATTCAGGCAGTACTGACGCTTGTCCACA

80▶ V N L T Q W Q R K Y T L E Y C Q A L L Q R S L H S G S D C S P C P H

901 CAACTGGATTGAGAATGGAAAAAGTTGTTACTATGTCTTTGAACGCTGGGAAATGTGGAACATCAGTAAGAAGAGCTGTTTAAAGAGGGCGCTAGTCTC

113▶ N W I Q N G K S C Y Y V F E R W E M W N I S K K S C L K E G A S L

1001 TTTCAAATAGACAGCAAAGAAATGGAGTTCATCAGCAGTATAGGAAACTCAAAGGAGGAAATAAATATTGGGTGGGAGTGTTCAGAGTGGAAATCA

147▶ F Q I D S K E E M E F I S S I G K L K G G N K Y W V G V F Q D G I

BglII (1178)
NgoMI (1171)
NaeI (1171)

1101 GTGGATCTTGGTTCTGGGAAGATGGCTCTTCTCCTCTCTGACTTGTGCCAGCAGAAAGACAGCGATCAGCCGGCCAGATCTGTGGATACCTCAAAGA

180▶ S G S W F W E D G S S P L S D L L P A E R Q R S A G Q I C G Y L K D

BamHI (1264)

1201 TTCTACTCTCATCTCAGATAAGTGCATAGCTGAAAAATTTTATCTGTGAGAAGAAGGCATTTGGATCCTGCATCTGAAAGATACAACCTCAAAGCTACC

213▶ S T L I S D K C D S W K Y F I C E K K A F G S C I •

MscI (1315)
NheI (1309)

1301 TGTTACACAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAACCCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTT

HpaI (1447)
MfeI (1458)

1401 GTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACCAATTGCATTATTTATGTTTCAGGTTTCAGGGGAGGTGTG

EcoRI (1543)

1501 GGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATCTAAAATACAGCATAGCAAACTTTAACTCCAAATCAAGCCTCTACTTGAA

1601 TCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATA

SwaI (1796)

1701 GTGTATTTTCCCAAGTTTGAACCTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCCACATCCCTTTTTAGTAAAATATTCAGAAATAATTT

EcoO109I (1857)

1801 AAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTCATAATATCCCCAGTTTAGTAGTTGGAAGTGGG

1901 AACAAAGGAACCTTAAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTCTCGGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTT

141▶ • N R T Y K L P I L E E I T T K

SacI (2057)

2001 GACCAGCTTGCCATTCTCAATGAGCACAAAGCAGTCAAGGAGCATAGTCAGAGATGAGCTCTCGACATGCCACAGGGGCTGACCACCCTGATGGAT

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

2101 CTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCAC

91▶ 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 C

StuI (2221)
Eco147I (2221)

2201 AGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTCTTGTTCCTC

58▶ 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

BspHI (2371)
XmnI (2363)

2301 ATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTCTATAGTGAGTCGTA

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 ◀

2401 **VspI (2429)** **AseI (2429)** **SacI (2486)**
 TTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTAT

2500 **SpeI (2584)**
 ATAGACCTCCCACGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAA

2599 **SpeI (2584)**
 ACTCCCATTTGACGTCAATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTA

2699 **SnaBI (2712)** **Eco105I (2712)**
 ATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGT

2799 **NdeI (2817)**
 CAATAGGGGGCGTACTTGGCATATGATACACTTGTACTGCTCAAGTGGGCGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTAT

2899 **SdaI (299)**
 TGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGCGGTACAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCC

2998 **Pacl (3003)** **BspLU11I (3013)**
 TGCAGGTTAA TTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCC

3096 **BspLU11I (3013)**
 TGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAGATACCAGGCGTTTTCCCTGGAAAGCTCCCTCGTGCCG

3196 **BspLU11I (3013)**
 TCTCCTGTCCGACCCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCAGCTGTAGGTATCTCAGTT

3296 **ApaLI (3327)**
 CGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCC

3396 **ApaLI (3327)**
 GGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCT

3496 **ApaLI (3327)**
 AACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAA

3596 **ApaLI (3327)**
 CCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGA

3696 **Pacl (3743)** **Swal (3752)** **EagI (3763)** **NotI (3762)**
 CGCTCAGTGAACGAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTCATTAC

3796 **Pacl (3743)** **Swal (3752)** **EagI (3763)** **NotI (3762)**
 ATCTGTGTGTTGTTTTTTGTGTGAATCGTAACATAACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCAGTGC

3896 **Pacl (3743)** **Swal (3752)** **EagI (3763)** **NotI (3762)**
 AAGTGCAGGTGCCAGAACATTTCTATCGAA