



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

1 GGATCTGCATCGCTCCGGTGCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTATGTCGTGTACTGGCTCCGCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)

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

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACCGCGCCGCCCTACCTGAGGGC

301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCTGTGGTGCCTCCTGAACTGCGTCCCGCTTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTCCTGACCTGCTTCTCAACTCTACGCTTTGTTTCGTTT

AgeI (552)
SphI (560)
Bsp120I (589)

501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGGCGCTACCTGAGATCACCGGTGAGCATGCCGGTGGACCTCAGCAAGTGGTCCGGCCCTTGAG

1▶ M P V D L S K W S G P L S

BstAPI (627)

601 CCTGCAAGAAGTGGACGAGCAGCCGACACCCGCTGCATGTCACCTACGCCGGGGCGGGTGGACGAGCTGGGCAAAGTGTGACGCCACCCAGGTT

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

BamHI (792)

701 AAGAATAGACCCACCAGCATTTCGTGGGATGGTCTTGATTGAGGGAAGCTCTACACCTTGGTCTGACAGACCCGGATGCTCCAGCAGGAAGGATCCCA

47▶ K N R P T S I S W D G L D S G K L Y T L V L T D P D A P S R K D P

801 AATACAGAGAATGGCATCATTTCCTGGTGGTCAACATGAAGGCAATGACATCAGCAGTGGCACAGTCTCTCCGATTATGTGGGCTCGGGCCTCCCAA

80▶ K Y R E W H H F L V V N M K G N D I S S G T V L S D Y V G S G P P K

StuI (906)
Bsp120I (1043)
BbrPI (1059)

901 GGGCACAGGCTCCACCCTATGTCGTGGCTGGTTACGAGCAGGACAGGCCGCTAAAGTGTGACGAGCCATCCTCAGCAACCGATCTGGAGACCACCGT

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

1001 GGCAAATCAAGTGGCGTCTTCCGTA AAAAGTATGAGCTCAGGGCCCCGGTGGCTGGCACGTGTTACAGGCCAGTGGGATGACTATGTGCCAAAC

147▶ G K F K V A S F R K K Y E L R A P V A G T C Y Q A E W D D Y V P K

MscI (1139)

PvuII (1108)
NheI (1133)

1101 TGTACGAGCAGCTGTCTGGGAAGTAGGGGTTAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAA

180▶ L Y E Q L S G K •

HpaI (1271) **MfeI (1282)**

1201 AAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAAATGCATTCTTTAT

EcoRI (1367)

1301 GTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCATAAATACAGCATAGCAAACTTTAAC

1401 CTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTGCAGCCTCACC

SapI (1549)

1501 TTCTTTCATGGAGTTAAGATATAGTGTATTTTCCCAAGGTTTGAAGTCTCTTCATTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTT

SspI (1606)
SwaI (1620)

1601 TAGTAAAAATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCC

1701 CCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGG

141▶ • N R T Y K L P

1801 GATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCA

133▶ I L 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

BstXI (1910)

1901 CAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAG

99▶ C P 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

StuI (2045)

2001 ACCCAATGGCAATGGCTTCAGCAGACAGTACCCTGCCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTCTGATGGCCGC

66▶ G I 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

BbsI (2191)

XmnI (2187)

2101 CCCGACATGGTGTCTGTTGTCCTCATAGAGCATGGTGTCTTCTCAGTGGCGACTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATG

33▶ G V 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 (2253)

2201 GTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGG

2301 TTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCC

2401 GTTGATTTACTAGTCAAAAACAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGACTG
SpeI (2408)

2501 CCAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAGGTCATGTACTGGCATAATGCCAGGCG
SnaBI (2536)

2601 GGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATT
NdeI (2641)

2701 GACGTCAATGGAAAGTCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATT

2801 TACCGTAAGTTATGTAACGCCTGCAGGTTAATTAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGCTGGCGTTTT
PacI (2827) PstI (2820) SdaI (2819) BspLU11I (2837)

2901 TCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCC

3001 TGGAAAGCTCCCTCGTGGCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCA

3101 CGCTGTAGGTATCTCAGTTCGGTGTAGGTGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACT
ApaLI (3151)

3201 ATCGTCTTGAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGA

3301 GTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGC

3401 TCTTGATCCGGCAAACAACCACCGCTGGTAGCGGTGGTTTTTTTGTGCAAGCAGCAGATTACGGCAGAAAAAAGGATCTCAAGAAGATCCTTTGA

3501 TCTTTTCTACGGGTCTGACGCTCAGTGAACGAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCCAATAAA
PacI (3567) SmaI (3576) EagI (3587) NotI (3586)

3601 ATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAA

3701 AATAGGCTGTCCCAGTCAAGTGCAGGTGCCAGAACATTTCTATCGAA