



PvuI (7) SgfI (6) MfeI (82)  
1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
101 GAGAAAGTGGCGCGGGTAAACTGGAAAAGTGTGCTGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) HindIII (245) Bsu36I (291)  
201 GTGAACGTTCTTTTTTCGAACGGGTTTCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTACCGCGCCCGCCCTACCTGAGGCC  
301 GCCATCCACGCCGGTTGAGTCGGTCTTCCGCGCTCCCGCTGTGGTGCCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGCTTTTGTTCGTTT

BstEII (555) AgeI (552) NcoI (560)  
501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCTACCTGAGATCACCGGTACCATGGCGATGTTCCGACGCTGGTGGCCTCGGCGCAGCA  
1▶ M A M F R S L V A S A Q Q

Bsp120I (616) NgoMIV (609) SacII (620)  
601 GCGGCAGCCGCCGGCTGGGCCCGCGGGCGGCGACAGCGGCCTGGAGGCGCAGTTCAGCTGTCCCATCTGCCTGGAGGTGTACCATCGGCCAGTGGCCATC  
13▶ R Q P P A G P A G G D S G L E A Q F S C P I C L E V Y H R P V A I  
701 GGCAGCTGGCCACACGTTCTGCGGGAGTCCAGCTGTCTGAGTGGCTCCCTCTGTGCCACTCTGCCGTGCTGCCCTCGACCCCAAGA  
47▶ G S C G H T F C G E C L Q P C L Q V P S P L C P L C R L P F D P K  
801 AAGTGGACAAGGCCACCCATGTAGAGAAGCAACTCTATCCTACAAGGACCCCTGTGCGGGTTGCAACAAGAAGGTGACACTGGCCAAGATGAGAGCGCA  
80▶ K V D K A T H V E K Q L S S Y K A P C R G C N K K V T L A K M R A H  
AgeI (998)  
901 CATTTCTCCTGCCTGAAGTCCAGGAGCAGATGGCTAACTGCCCAAATTCGTCCCTGTGGTGGCCACATCTCAGCCATCCCAGCAATATCCCCAAC  
113▶ I S S C L K V Q E Q M A N C P K F V P V V P T S Q P I P S N I P N

DraIII (1063)  
1001 CGGTCTACCTTCGCTGCCCTACTGCGGAGCCGCAATCTGGATCAGCAGGAGTGGTGAAGCACTGCGTGGAAAGTACCAGCAGTATCCCAACCGTG  
147▶ R S T F A C P Y C G A R N L D Q Q E L V K H C V E S H R S D P N R

SaDI (1133) EcoO109I (1133)  
1101 TGGTATGCCCCATCTGCTCAGCAATGCCTGGGGGACCCAGCTACAAAAGCGCAACTTCTGCAGCATCTGCTGCACCGGCACAAGTTCTCTACGA  
180▶ V V C P I C S A M P W G D P S Y K S A N F L Q H L L H R H K F S Y D

NheI (1287)  
1201 CACCTTGTGGACTACAGCATIGACGAAGAAGTGCCTTCCAGGCTGCCCTGGCTGTCCCTCTCTGAGAACTGAGGCACAGCCTGGCTAGCTGGCCAG  
213▶ T F V D Y S I D E E A A F Q A A L A L S L S E N •  
1301 ACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGT

HpaI (1425) MfeI (1436)  
1401 AACCATATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGTTTTTTAAAGCAAGTAA

EcoRI (1521)  
1501 AACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAA  
1601 GGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTGCAGCCTCACCTTCTTCATGGAGTTAAGATATAGTGTATTTTCCCAAGGTTTGAA

SapI (1703) SspI (1760) SmaI (1774)  
1701 CTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAA

EcoO109I (1835)  
1801 TAAATGTTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAA  
1901 ATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGCTGACTTGGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCTCA  
141▶ N R T Y K L P I L E E I T T K V L K G N M E

SacI (2035)  
2001 ATGAGCACAAGCAGTCAAGGAGCATAGTCAAGATGAGCTCTGACATGCCACAGGGGTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGG  
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 (2199)  
2101 GGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAAGCAGACAGTGCCTGCCAATGTA  
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  
2201 GGCCTCAATGTGGACAGCAGAGATGATCTCCCACTTGGTCTGATGGCCGCCGACATGGTGTGTTGCTCCTCATAGAGCATGGTATCTTCTCA  
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 (2345) XmnI (2341)  
2301 GTGGCAGCTCCACAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTCATGGTGGCCCTCCTATAGTGAGTCGTATTATACTATGCCGATATACTAT  
17▶ T A V E V L E L D Q Q S I N F T K M

2401 **AseI (2407)** **SacI (2464)**  
GCCGATGATTAATTGTCAA AACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCC

2501 **SpeI (2562)**  
TACCGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAACTCCCATTGACGTCAATGGGGTG

2601 **SnaBI (2690)**  
GAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATG

2701 **NdeI (2795)**  
TACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATAT

2801  
GATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGT

2901 **SdaI (2973)** **PaeI (2981)** **BspLU11I (2991)**  
CATTATTGACGTCAATGGGGGGGGTTCGTTGGGCGGTACGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATAAGAACATGTGAG

3001  
CAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTC

3101  
AAGTCAGAGGTGGCGAAACCCGACAGGACTATAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGCTTACC

3201  
GGATACCTGTCCGCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGTTCCGCTCCAAGCTGG

3301 **ApaLI (3305)**  
GCTGTGTGCACGAACCCCCGTTTCAGCCCGACCCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGC

3401  
AGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTA

3501  
TTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTG

3601  
TTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTA

3701 **EagI (3741)** **PaeI (3721)** **SwaI (3730)** **NotI (3740)**  
AGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGTTTTTGTGTGAAT

3801  
CGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTA

3901  
TCGAA