



**PvuI (7)**  
**SgfI (6)** MfeI (82) EcoNI (96)  
1 GGATCTGCGATCGCTCCGGTGCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGTCTGTACTGGCTCCGCTTTTTCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC  
HindIII (245) **Bsu36I (291)**  
**Psp1406I (203)** **PvuII (239)** EcoNI (287)  
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCGCCCTACCTGAGGCC  
301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCTGTGGTGCTCCTGAACTGCGTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC  
NcoMIV (441)  
401 GGGCCTTTGTCCGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCAGCTTTGCTGACCCTGTTGCTCAACTCTACGCTTTTGTTCGTTT  
**BstEII (555)**  
**AgeI (552)** **NcoI (560)**  
501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTACCATGGCCCGCGTCTCTCCGCCGCCCCAGCAATCC  
1 M A R A A L S A A P S N P  
**BssHII (651)**  
NcoMIV (647) MscI (671) **BstAPI (699)**  
601 CCGGCTCCTGCGAGTGGCGTGTCTCTGCTCCTGGTAGCCGCTGGCCGGCGCGCAGCAGGAGCGTCCGTGGCCACTGAACTGGCTGCCAGTGCCTG  
13 R L L R V A L L L L L V A A G R R A A G A S V A T E L R C Q C L  
PstI (706)  
SdaI (705) EcoRI (713)  
701 CAGACCTGCAGGGAATTCACCCAAAGAACATCAAAGTGTGAACGTGAAGTCCCGGACCCACTGCGCCAAACCGAAGTCATAGCCACACTCAAGA  
47 Q T L Q G I H P K N I Q S V N V K S P G P H C A Q T E V I A T L K  
HindIII (809)  
801 ATGGGCGAAAAGCTTGCCTCAATCCTGCATCCCCATAGTTAAGAAAATCATCGAAAAGATGTGAACAGTGACAAATCCAATGACCAGAAGGGAGGAG  
80 N G R K A C L N P A S P I V K K I I E K M L N S D K S N •  
MscI (919)  
**NheI (913)**  
901 GAAGCTACTGGTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAA  
HpaI (1051) MfeI (1062)  
1001 ATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAAACAAGTTAAACAACAACCAATTGCATTCTTTATGTTTCAGGTTTCAGGGGAGG  
EcoRI (1147)  
1101 TGTGGGAGTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACT  
1201 TGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTTCATGGAGTTAAGA  
SapI (1329) SspI (1386)  
1301 TATAGTGATTTTCCCAAGTTTGAAGTACTGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAATATTCAGAAATA  
SwaI (1400) **EcoO109I (1461)**  
1401 ATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTT  
1501 AGGGAACAAAGGAACCTTAAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGG  
141 N R T Y K L P I L E E I T T  
SacI (1661) **BstXI (1690)**  
1601 TTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGAT  
126 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 S V V R I  
1701 GGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCA  
93 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 A I A E  
**StuI (1825)**  
1801 GCACAGACAGTGACCCTGCCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCAGCTTGGTCTGATGGCCGCCCGACATGGTGCTTGTGT  
59 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 H H K N D  
**BbsI (1971)**  
**XmnI (1967)**  
1901 CCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCTATAGTGAGT  
26 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 (2033) SacI (2090)  
2001 CGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCATAAACGAGCTCTGCT  
SpeI (2188)  
2101 TATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAC

2201 AACTCCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGG

**SnaBI (2316)**

2301 TAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGAC

**NdeI (2421)**

2401 GTCAATAGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCT

SdaI (2599)

2501 ATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGC

PacI (2607)

PstI (2600)

**BspLU11I (2617)**

2601 CTGCAGGTTAAITAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCT



2701 GACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGGCT

2801 CTCCTGTTCCGACCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTC

**ApaLI (2931)**

2901 GGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCG

3001 GTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTA

3101 ACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAC

3201 CACCGCTGGTAGCGGTGGTTTTTTGTTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGAC

**EagI (3367)**

PacI (3347) SwaI (3356) **NotI (3366)**

3301 GCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACA

3401 TCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCA

3501 AGTGCAGGTGCCAGAACATTTCTCTATCGAA