



**PvuI (7)**  
**SgfI (6)** MfeI (82) EcoNI (96)  
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
101 GAGAAAGTGGCGGGGTAAGTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

**HindIII (245)** **Bsu36I (291)**  
**Psp1406I (203)** **PvuII (239)** EcoNI (287)  
201 GTGAACGTTCTTTTTCGCAACGGGTTTCCGCCAGAACACAGCTGAAGCTTCAGAGGGCTCGCATCTCTCTTACACGGCCCGCCCTACCTGAGGCC  
301 GCCATCCACGCGGTTGAGTGCCTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

**NgoMIV (441)**  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

**KasI (535)** **BspHI (560)**  
501 TCTGTTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCCCTACCTGAGATCACCGGACATCATGAAATATACAAGTTATATCTTGGCTTTTCAGCTCTG  
1 M K Y T S Y I L A F Q L C

**NdeI (638)** **SspI (668)**  
601 CATCGTTTTGGTCTCTTGGCTGTTACTGCCAGGACCATATGTAAAAGAAGCAGAAAACTTAAGAAATATTTTAAATGAGGTCATTGAGTGTAGCG  
13 I V L G S L G C Y C Q D P Y V K E A E N L K K Y F N A G H S D V A  
701 GATAATGGAACCTTTTCTAGGCATTTTGAAGAATTGAAAGAGGAGAGTGACAGAAAAATAATGCAGAGCCAAATTGTCTCTTTTACTTCAAACCTT  
47 D N G T L F L G I L K N W K E E S D R K I M Q S Q I V S F Y F K L

**BbsI (853)**  
801 TAAAAAATTTAAAGATGACCAGAGCATCCAAAAGAGTGTGGAGACCATCAAGGAAGACATGAATGTCAAGTTTTTCAATAGCAACAAAAAGAAACGAGA  
80 F K N F K D D Q S I Q K S V E T I K E D M N V K F F N S N K K R D

**BstBI (904)**  
901 TGACTTCGAAAAGCTGACTAATTATTCGGTAAGTACTGACTGAAATGTCCAACGAAAGCAATACATGAACTCATCCAAGTGTGGCTGAACTGTCGCCAGCA  
113 D F E K L T N Y S V T D L N V Q R K A I H E L I Q V M A E L S P A

**MscI (1069)** **NheI (1063)**  
1001 GCTAAAACAGGGAAGCGAAAAAGGAGTCAGATGCTGTTTCGAGGTCGAAGAGCATCCCAGTAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGT  
147 A K T G K R K R S Q M L F R G R R A S Q •  
1101 TTGGCAAACCACTAGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAACA

**HpaI (1201)** MfeI (1212) **EcoRI (1297)**  
1201 AGTTAAACAACAACAAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGAA  
1301 TTCTAAAATACAGCATAGCAAACTTTAACCTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGC  
1401 CAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGAGTTTAAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTCTTCTTTCTTTATGTTT

**SspI (1536)** **SwaI (1550)**  
1501 TAAATGCACTGACCTCCACATTCCTTTTATGTAATAATTCAGAAATAATTTAAATATACATCATTGCAATGAAATAAATGTTTTTTATTAGGCAGAAT

**EcoO109I (1611)**  
1601 CCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTT  
1701 CTAGCTTTAGTTCCTGGTACTTGGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTATCTCAATGAGCACAAGCAGTCAGGAGCA  
141 • N R T Y K L P I L E E I T T K V L K G N M E I L V F C D P A

**SacI (1811)** **BstXI (1840)**  
1801 TAGTCAGAGATGAGTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGT  
109 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 H R V A V I T D

**StuI (1975)**  
1901 CAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCCAGCAGACAGTACCCTGCCAATGTAGGCTCAATGTGGACAGCAGAGAT  
76 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 A E I H V A S I  
2001 GATCTCCCAGTCTTGGTCTGATGGCCGCCGACATGGTCTTGTCTCATAGAGACATGGTGTATCTTCTCAGTGGCGACCTCCACAGCTCCAGA  
43 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 T A V E V L E L

**BbsI (2121)** **XmnI (2117)** **AseI (2183)**  
2101 TCCTGCTGAGAGATGTTGAAGTCTTATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAG  
9 D Q Q S I N F T K M

**SacI (2240)**  
2201 CGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCCACCGTACACGCTACCGCCATTTGCGTCAATGGGG

**SpeI (2338)**  
2301 CGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTC

**SnaBI (2466)**  
2401 AAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCCAT

**NdeI (2571)**  
2501 AAGGTCATGTAAGTGGCATAATGCCAGGCGGGCCATTTACCGTCAATGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGTACTGCAAGT

2601 GGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGAAAAGTCCCTATTGGCGTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGG

PacI (2757)

PstI (2750)

SdaI (2749)

BspLU11I (2767)

2701 GTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGA

2801 ACCGTAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGAC

2901 AGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCT

ApaLI (3081)

3001 TCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTC

3101 AGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAG

3201 CAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAG

3301 CCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGCAAGCAGCAGATTACGCGCA

PacI (3497)

3401 GAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACACGTTAAGGGATTTTGGTCATGGCTAGTTA

EagI (3517)

SwaI (3506)

NotI (3516)

3501 ATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGGTTTTTTGTGGAATCGTAACTAACATACGCTCTCCATC

3601 AAAACAAAACGAAACAAAACAAACTAGCAAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA