



**PvuI (7)**  
**SgfI (6)** MfeI (82) EcoNI (96)  
 1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
 101 GAGAAGGTGGCGGGGTAACCTGGAAAGTGATGTCGTGTACTGGCTCCGCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

**Psp1406I (203)** **HindIII (245)** **Bsu36I (291)**  
 PvuII (239) EcoNI (287)  
 201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCCGCCGCCCTACCTGAGGCC  
 301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

**NgoMIV (441)**  
 401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGTCTTTGTTTCGTTT

**NcoI (560)**  
**BstEII (555)**  
**AgeI (552)**  
 501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCCCTACCTGAGATCACCGGTACCATTGGGTGCCCGACGTTGCCCTGCCTGGCAGCCCTT

**BsrBI (667)**  
 601 TCTCAAGGACCACCGCATCTCTACATTCAAGAAGTGGCCCTTCTGGAGGGTGCCTGCACCCCGAGCGGATGGCCGAGGCTGGCTTCATCCACTGC  
 13▶ L K D H R I S T F K N W P F L E G C A C T P E R M A E A G F I H C  
 701 CCCACTGAGAACGAGCCAGACTTGGCCAGTGTCTTCTGCTTCAAGGAGCTGGAAGCTGGGAGCCAGATGACGACCCCATAGAGGAACATAAAAAAGC  
 47▶ P T E N E P D L A Q C F F C F K E L E G W E P D D P I E E H K K  
 801 ATTCGTCGGTTGCGCTTTCCTTTCTGTCAAGAAGCAGTTTGAAGAATTAACCTTGGTGAATTTTGAACCTGGACAGAGAAAGCAAAACAAAAT  
 80▶ H S S G C A F L S V K K Q F E E L T L G E F L K L D R E R A K N K I

**PvuII (970)** **MscI (997)**  
**XemI (962)** **NheI (991)**  
 901 TGCAAAGGAAACCAACAATAAGAAGAAAGAATTTGAGGAAACTGCGAAGAAAGTGCAGCGATCGAGCAGCTGGCTGCTATGGATTGAGCTAGCTGG  
 113▶ A K E T N N K K K E F E E T A K K V R R A I E Q L A A M D •  
 1001 CCAGACATGATAAGATACATTGATGAGTTTGGACAAACCAACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTAT

**HpaI (1129)** MfeI (1140)  
 1101 TTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCTTTTATGTTTCAGGTTTACGGGGAGGTGTGGGAGGTTTTTAAAGCAA

**EcoRI (1225)**  
 1201 GTAAAACCTCTACAAATGTGGTATGGAATTTCAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGA  
 1301 ATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTTCATGGAGTTTAAAGATATAGTATTTTCCCAAGGTT

**SapI (1407)** **SspI (1464)** **Swal (1478)**  
 1401 TGAAGTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTGTAGAAAATATTCAGAAATAATTTAAATACATCATTGCAATG

**EcoO109I (1539)**  
 1501 AAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAAT  
 1601 AGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCAT  
 141 • N R T Y K L P I L E E I T T K V L K G N M

**SacI (1739)** **BstXI (1768)**  
 1701 CTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGTGACCACCCTGATGGATCTGTCCACCTCATCAGAG  
 119▶ 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 R D V E D S  
 1801 TAGGGTGCCTGACAGCCACAATGGTGTCAAAGCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAA  
 85▶ 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 V T V R G I

**StuI (1903)**  
 1901 TGTAGGCCCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGCTTGTGTCTCATAGAGCATGGTGATCTT  
 52▶ 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 Y L M T I K

**BbsI (2049)** **XmnI (2045)**  
 2001 CTCAGTGGCGACCTCCACAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCCTATAGTGAGTCGTATTATACTATGCCGATATA  
 19▶ E T A V E V L E L D Q Q S I N F T K M

**AseI (2111)** **SacI (2168)**  
 2101 CTATGCCGATGATTAATTGTCAAACACAGCTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTGCTGCTTATATAGACCTCCACCGTACA

**SpeI (2266)**  
 2201 CGCCTACCGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTGGAAAGTCCCGTTGATTTACTAGTCAAACAAACTCCCATTGACGTCAATGG

**SnaBI (2394)**  
 2301 GGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCCAGCCCATTTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTA

**NdeI (2499)**  
 2401 GATGTACTGCCAAGTAGGAAAGTCCCATAAAGTGTACTGAGGAGTATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGC  
 2501 ATATGATACACTTGTACTGCAAGTGGGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACAT

PacI (2685)

PstI (2678)

SdaI (2677)

BspLU11I (2695)

2601 ACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAAATAAGAACATG

2701 TGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGAC

2801 GCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGCT

2901 TACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGGTAGGTCGTTCCGCTCCAAG

**ApaLI (3009)**

3001 CTGGGCTGTGTGCACGAACCCCGTTAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCAC

3101 TGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAAC

3201 AGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTT

3301 TTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAAACTCAC

**EagI (3445)**

PacI (3425) SwaI (3434) NotI (3444)

3401 GTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGTTTTTGTGT

3501 GAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTTC

3601 TCTATCGAA