



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

1 GGATCTGCATCGCTCCGGTGCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAAGTGGCGCGGGTAAACTGGAAAAGTGTGCTGTACTGGCTCCGCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

---

**HindIII (245)**

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

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCGCCCTACCTGAGGCC

301 GCCATCCACGCCGTTGAGTCGCGTTCTGCCGCTCCCGCTGTGGTGCCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

---

**NgoMIV (441)**

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTCCTGACCCTGCTTGTCAACTCTACGCTTTTGTTCGTTT

---

**BglII (566)**

**AgeI (552)** **BspHI (560)**
**PvuII (575)**

501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCATCATGAAGATCTCTGCAGCTGCCTCACCATCATCCTCAC

1▶ M K I S A A A L T I I L T

**NdeI (635)**

601 TGCAGCCGCCCTCTGCACCCCGCACCTGCCTCACCATATGGCTCGGACACCACTCCCTGCTGCTTTGCCTACCTCTCCCTCGCGCTGCCTCGTGCCAC

13▶ A A A L C T P A P A S P Y G S D T T P C C F A Y L S L A L P R A H

**BstAPI (722)**

**XcmI (787)**

701 GTCAAGGAGTATTCTACACCAGCAAGTCTCAATCTTGCAGTCGTGTTTGTACTCGAAGGAACCGCAAGTGTGCGCAACCCAGAGAAGAAGT

47▶ V K E Y F Y T S S K C S N L A V V F V T R R N R Q V C A N P E K K

**MscI (871)**

**NheI (865)**

801 GGGTTCAAGAATACATCAACTATTTGGAGATGAGCTAGGATAGAGGGTTTCTGATTCTGACCCTGTAGCTGGCCAGACATGATAAGATACATTGATGA

80▶ W V Q E Y I N Y L E M S •

901 GTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAA

---

**HpaI (1003)**
**MfeI (1014)**
**EcoRI (1099)**

1001 CAAGTTAAACAACAACAATTGCATTCATTTTATGTTTCAGGTTCAAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGG

1101 AATTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTT

---

**SapI (1281)**

1201 GCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTCATGGAGTTAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTGCTTTCATTTCTTTATGT

---

**SspI (1338)**
**SwaI (1352)**

1301 TTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAATGTTTTTTATTAGGCAGA

---

**EcoO109I (1413)**

1401 ATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTGTAGTGTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGC

1501 TTCTAGCTTTAGTTCCTGGTGTACTTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTTCATCTCAATGAGCACAAGCAGTCAGGAG

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 (1613)**
**BstXI (1642)**

1601 CATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGT

110▶ 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

**StuI (1777)**

1701 GTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAAATGGCAATGGCTTTCAGCACAGACAGTACCCTGCCAATGTAGGCCATATGTGGACAGCAGAG

77▶ 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 A E I H V A S

1801 ATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGTGTTGTCTCATAGAGCATGGTGTCTTCTAGTGGCGACCTCCACAGCTCCA

43▶ 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 T A V E V L E L

**BbsI (1923)**

**XmnI (1919)**
**AseI (1985)**

1901 GATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCTATAGTGTGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAAC

10▶ D Q Q S I N F T K M

**SacI (2042)**

2001 AGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCATAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGG

---

**SpeI (2140)**

2101 GGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCGTGGAG

---

**SnaBI (2268)**

2201 TCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCC

2301 ATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAA  
2401 GTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCCG  
2501 GGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAG  
2601 GAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCG  
2701 ACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCC  
2801 CTTGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGT  
2901 TCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATT  
3001 AGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGA  
3101 AGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTTCGCAAGCAGCAGATTACGCG  
3201 CAGAAAAAAGGATCTCAAGAAGATCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACTCACGTTAAGGGATTTTGGTCATGGCTAGT  
3301 TAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCA  
3401 TCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCAGTGCAAGTGCAAGTGCCAGAACATTTCTCTATCGAA

NdeI (2373)

PacI (2559)

SdaI (2551)      BspLU11I (2569)

ApaLI (2883)

PacI (3299)

EagI (3319)

SwaI (3308)      NotI (3318)