



**PvuI (7)**  
**SgfI (6)**
**MfeI (82)** **EcoNI (96)**

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

**Psp1406I (203)**
**HindIII (245)** **Bsu36I (291)**

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCAGAGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC  
 301 GCCATCCACGCGGTTGAGTGCCTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

**NgoMIV (441)**  
**NaeI (441)**

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

**KasI (535)**
**AgeI (552)** **BspLU11I (560)** **XmnI (579)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCAACATGTCGTCTGAAGAAGGGAAACTCTTCGTAGGAGGGCT  
 1 M S S E E G K L F V G G L

**BbsI (628)**
**XmaI (698)**

601 CAACTTCAACACCGATGAACAGGCACTTGAAGACCACTTCAGCAGCTTTGGCCATCTCTGAGGTGGTTGTTGTCAAGGACCGGGAGACTCAAAGATCC  
 13 N F N T D E Q A L E D H F S S F G P I S E V V V V K D R E T Q R S

**SphI (735)**
**KasI (782)**

701 CGGGTTTTGGCTTCATCACCTTCAAAAACCCAGAGCATGCCTCAGAGCGCATGAGAGCTATGAATGGAGAGTCCCTGGATGGCGCCAAATCCGAGTTG  
 47 R G F G F I T F T N P E H A S D A M R A M N G E S L D G R Q I R V

**BamHI (823)**
**XbaI (865)** **BstXI (882)**

801 ATCATGCAGGAAAGTCTGCCAGGGGATCCAGAGGGGGTGCCTTTGGTGGGCGTGGTCGAGTACTCTAGAGTGGTGAGACAGGGATATGGAAGTGG  
 80 D H A G K S A R G S R G G A F G G R G R S Y S R G G G D Q G Y G S G

**PshAI (907)**
**XbaI (946)**

901 AAGATATGACAGTCGTCTGGAGGATATGGATATGGGTATGGGCGGTCTAGAGACTACAGTGGCAGAAGCCAGGGTGGCTATGACCGTACTCAGGAGGA  
 113 R Y D S R P G G Y G Y G Y G R S R D Y S G R S Q G G Y D R Y S G G

**NheI (1037)**
**SphI (1033)** **MscI (1043)**

1001 AATTACAGAGACAATTATGACAACCTGAGATGGGCATGCTAGCTGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAG  
 147 N Y R D N Y D N •

**HpaI (1175)** **MfeI (1186)**

1101 TGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAAGTTAAACAACAATTGCATTCA

**EcoRI (1271)**

1201 TTATGTTTCAGGTTCAAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACCTT  
 1301 TAACCTCAAATCAAGCCTCTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTGCAGCCT  
 1401 CACCTCTTTTCATGGAGTTAAGATATAGTGTATTTTCCCAAGGTTTGAAGTACTGCTTTCATTCTTTATGTTTTAATGCAGTACCTCCACATTCCC

**SspI (1510)** **SwaI (1524)**
**EcoO109I (1585)**

1501 TTTTGTAGTAAAATATTGAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATA  
 1601 TCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGA  
 141 • N R T Y K L

**SacI (1785)**

1701 GGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTTCATCTCAATGAGCACAAAGCAGTCAAGAGCATAGTCAAGATGAGCTCTGCACAT  
 134 P I L E E I T T 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

**BstXI (1814)**

1801 GCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACA  
 101 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 F D K Q G N S V

**StuI (1949)**

1901 GCAGACCAATGGCAATGGCTTCCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCAGTCTTGGTCTGATGG  
 67 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 I E G T K T R I A

**BspHI**  
**BbsI (2095)**

**XmnI (2091)**

2001 CCGCCCCGACATGGTCTTGTTCCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTT  
 34 A G V H H K N D 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

**AseI (2157)**

2101 CATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCT  
 14 M

**SacI (2214)**

2200 GACGGTTCATAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTGCGTCAATGGGCGGAGTTGTTACGACATTTTGAAA

**SpeI (2312)**

2300 GTCCCGTTGATTTACTAGTCAAAAACAACTCCCAATTGACGTCAATGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCCAATTGAT

**SnaBI (2440)**

2399 GTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCCATAGGTCATGTACTGGGCATAATGC

**NdeI (2545)**

2499 CAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGCCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCA

2599 CCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGGTCTGTTGGGCGGTGAGCCAGGCGG

**PstI (2724)**

**SdaI (2723)** **PacI (2731)**

**BspLU11I (2741)**

2699 GCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCT

2797 GGGGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCG

2897 TTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTTCCCTTCGGGAAGCGTGGCGCTTTCTC

**ApaLI (3055)**

2997 ATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCCAGCCGACCGCTGCGCCTTATC

3097 CGGTAACATATCGTCTTGAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGT

3197 GCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAG

3297 TTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGA

**EagI (3491)**

**PacI (3471)** **SwaI (3480)**

**NotI (3490)**

3397 TCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAAACCTCACGTTAAGGGATTTTGGTCTAGGCTAGTTAATTAACATTTAAATC AGCGGCC

3497 GCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAA

3597 ACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA