



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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCGCTACCTGAGGCC

301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

**KasI (535)**
**NcoI (560)** **BstEII (555)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATTGGCTGCAGCTTGGACCGTGGTGTCTGGTACTTTGGT

1▶ M A A A W T V V L V T L V

601 GCTAGGCTTGGCCGTGGCAGGCCCTGTCCCACTTCCAAGCCACCACAACCTGGGAAGGGTGCACATTGGCAGGTTCAAATCTGTCTACCCACAGGAG

13▶ L G L A V A G P V P T S K P T T T G K G C H I G R F K S L S P Q E

**NheI (699)**

**XcmI (719)**
**BbsI (775)** **Bsu36I (795)**

701 CTAGCGAGCTTCAAGAAGGCCAGGGACGCTTGGAAAGTCACTCAAGCTGAAAACTGGAGTTGCAGCTCTCTGTCTTCCCGGGAATTGGGACCTGA

47▶ L A S F K K A R D A L E E S L K L K N W S C S S P V F P G N W D L

801 GGCTTCTCCAGGTGAGGGAGCGCCTGTGGCCTTGAGGCTGAGCTGGCCTGACGCTGAAGTCTTGAGGGCGCTGCTGGCCAGCCCTGGAGGACGT

80▶ R L L Q V R E R P V A L E A E L A L T L K V L E A A A G P A L E D V

**XmaI (986)**

**StuI (947)** **Bsp120I (976)**

901 CCTAGACCAGCCCTTACACCCCTGCACCACATCTCTCCAGCTCCAGGCTGTATCCAGCCTCAGCCACAGCAGGGCCAGGCCCGGGCCGCCTC

113▶ L D Q P L H T L H H I L S Q L Q A C I Q P Q P T A G P R P R G R L

1001 CACCACTGGCTGCACCGCTCCAGGAGGCCCAAAAAGGAGTCCGCTGGCTGCCTGGAGGCATCTGTACCTTCAACCTCTTCCGCCTCCTCACGGAG

147▶ H H W L H R L Q E A P K K E S A G C L E A S V T F N L F R L L T R

**EcoRI (1194)**

1101 ACCTCAAATATGTGGCCGATGGGAACCTGTGTCTGAGAAGCTCAACCCACCCTGAGTCCACCTGACACCCACACCTTATTTATGCGTGTAGCCGAATTC

180▶ D L K Y V A D G N L C L R T S T H P E S T •

**NheI (1200)**

1201 GCTAGCTCGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGC

**HpaI (1363)** **MfeI (1374)**

1301 TTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAAACAACATTCATTATTTATGTTTCAGG

**EcoRI (1459)**

1401 TTCAGGGGAGGTGTGGGAGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTCTAAAATACAGCATAGCAAACTTTAACCTCAAAT

1501 CAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCA

**SspI (1698)**

1601 TGGAGTTTAAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAA

**SwaI (1712)**

1701 TATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTA

1801 GTAGTTGGACTTAGGAAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGGATGAGTT

141▶ • N R T Y K L P I L E

**SacI (1973)**

1901 CCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCT

130▶ 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 G C P S

**BstXI (2002)**

2001 GACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATG

97▶ 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 A S G I

**StuI (2137)**

2101 GCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCACTTGGTCTGTATGCCCCCGCCGACAT

63▶ 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 A G V H

**BspHI (2287)**

**BbsI (2283)** **XmnI (2279)**

2201 GGTGCTTGTCTCATAGAGCATGGTATCTTCTCAGTGGCAGCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCT

30▶ 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 M

**AseI (2345)**

2301 CCTATAGTGAAGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTATCTGACGGTTCACCTA

SacI (2402)  
2400 AACGAGCTCTGCTTATATAGACCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATT

SpeI (2500)  
2500 TACTAGTCAAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAA  
←

SnaBI (2628)  
Eco105I (2628)  
2599 CCGCATCATCATGGTAATAGCGTAGTAATAACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCAT

NdeI (2733)  
2699 TTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTC  
2799 AATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGGCGGGTCTTTGGCGGTCAGCCAGGCGGGCCATTACCGT

PstI (2912) PciI (2929)  
SdaI (2911) PacI (2919) BspLU11I (2929)  
2899 AAGTTATGTAACGCCTGCAGGTTAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCA  
←  
2997 TAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGA  
3097 AGCTCCCTCGTGCCTCTCTGTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGAAGCGTGGCGCTTTCTCATAGCTCAGCGCT

ApaLI (3243)  
3197 GTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACTATCG  
3297 TCTTGAGTCCAACCCGGTAAGACACGACTTATCGCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTTC  
3397 TTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTT  
3497 GATCCGGCAAACAACCACCGCTGGTAGCGGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTT

PacI (3659) SwaI (3668) NotI (3678) EagI (3679)  
3597 TTCTACGGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAATA

3696 TCTTTATTTTCATTACATCTGTGTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAT  
3796 AGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA