



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

**Psp1406I (203)** HindIII (245) **Bsu36I (291)**  
EcoNI (287)  
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACCGCGCCCGCCGCTACCTGAGGCC  
301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

**NgoMIV (441)**  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGTCTTTGTTTCGTTT

**NcoI (560)**  
**BstEII (555)**  
**KasI (535)** **AgeI (552)**  
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATGGCTCAACTTCTGCCAGAGGCGCATGAAGCTAAT  
1 M A Q L S A Q R R M K L M

**BstAPI (606)** ApaI (626) **Eco47III (670)**  
601 GGCCTGCAGTGTCTGTGGCAAAGTGCACATGGTCAAGGACGAGAGGCGGTTCCCTGGTCACTGTCAGCGCTCTGCCACCATCCCTGCCTCTGCC  
13▶ A L Q L L L W Q S A L W S G R E A V P L V T V S A L P P S L P L P

HindIII (702)  
701 CGAAGCTTCTGCTTAAGTCCCTGGAGCAAGTGAGGAAGATCCAGGCCAGCGGCTCGGTGCTGTGGAGCAGTTGTGTGCCACCTACAAGCTGTGTACC  
47▶ R S F L L K S L E Q V R K I Q A S G S V L L E Q L C A T Y K L C H

**BamHI (833)** EcoO109I (869) **XcmI (897)**  
801 CCGAGGAGCTGGTGTGCTGGGCCACTCTCTGGGATCCCGAAGGCTTCCCTGAGTGGCTGCTTAGCCAGGCCCTGCAGCAGACACAGTGCCTAAGCCA  
80▶ P E E L V L L G H S L G I P K A S L S G C S S Q A L Q Q T Q C L S Q  
901 GCTCCACAGTGGGCTCTGCCTCTCAAGGCTCTCTGCAGGCTCTATCGGGTATTTCCCTGCCCTGGCCACCTTGACCTTGACTTGCTCAGCTGGATGT  
113▶ L H S G L C L Y Q G L L Q A L S G I S P A L A P T L D L L Q L D V

**AvrII (1038)**  
1001 GCCAATTTGCCACCACCATCTGGCAGCAGATGAAAACTAGGGGTGGCCCTACTGTGCAGCCACACAGAGCGCCATGCCAGCCTTCACTTCTGCCT  
147▶ A N F A T T I W Q Q M E N L G V A P T V Q P T Q S A M P A F T S A

MscI (1124) **NheI (1193)** MscI (1199)  
1101 TCCAGCGCCGGGAGGAGGTGCTCTGGCCATTTCTGACCTGCAGGGCTTCTGGAGACGGCTCGCCTTGTCTGCACCACTTGGCCTAGACCTGCTAGCT  
180▶ F Q R R A G G V L A I S Y L Q G F L E T A R L A L H H L A •  
1201 GGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAATAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTT

**HpaI (1331)** MfeI (1342)  
1301 ATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGGGAGGTTTTTAAAGC

**EcoRI (1427)**  
1401 AAGTAAACCTCTACAAATGTGGTATGGAATTCATAAATACAGCATAGCAAACCTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGAT  
1501 GAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTTCCAAGG

**SapI (1609)** **SspI (1666)** SwaI (1680)  
1601 TTTGAAGTCTCTTCAATTTCTTATGTTTAAATGCAGTGCCTCCACATTCCTTTTATGAAAAATTCAGAAATAATTTAAATACATCATTGCAA

EcoO109I (1741)  
1701 TGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTCATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAGAACCTTTA  
1801 ATAGAAATTTGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTC  
141▶ • N R T Y K L P I L E E I T T K V L K G N

**SacI (1941)** **BstXI (1970)**  
1901 ATCTCAATGAGCACAAGCAGTCAAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAG  
119▶ M 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  
2001 AGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTACGACAGACAGTGCCTGCC  
86▶ 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

**StuI (2105)**  
2101 AATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCAGTCTTGGTCTGATGGCCGCCCCGACATGGTGTCTGTTGCTCCTCATAGAGCATGGTGATC  
53▶ I 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

**BbsI (2251)** **XmnI (2247)**  
2201 TTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATA  
19▶ K E T A V E V L E L D Q Q S I N F T K M

**AseI (2313)** **SacI (2370)**  
2301 TACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCATAAACGAGCTCTGCTTATATAGACCTCCACCCTGA

**SpeI (2468)**  
2401 CACGCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCATTGACGTCAAT

**SnaBI (2596)**

2501 GGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATGTAATAGCGATGACTAATACG

2601 TAGATGTAAGTCCCAAGTAGGAAAGTCCCATAGGTCATGTAAGTCCGAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTG

**NdeI (2701)**

2701 GCATATGATACACTTGATGTAAGTCCGAGTTCACCGTAAATACTCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTACTATGGGAAC

**PacI (2887) BspLU11I**

2801 ATACGTCAATATTGACGTCAATGGGCGGGGTCGTTGGGCGGTACGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAATTAAAGAACA

2901 TGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCG

3001 ACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCTGGAAGCTCCCTCGTGCGCTCTCTGTCCGACCTGCCG

3101 CTTACCGGATACCTGTCCGCTTTCTCCCTTCGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCA

**ApaI (3211)**

3201 ACGTGGGTGTGTGCACGAACCCCGTTCAGCCGACCGCTGCGCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGTTAAGACACGACTTATCGCC

3301 ACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGA

3401 ACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACCAACCGCTGGTAGCGGTGGTT

3501 TTTTGTGGTCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAATC

**EagI (3647)**

**PacI (3627) SmaI (3636) NotI (3646)**

3601 ACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGTTTTTGT

3701 GTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAGGTGCCAGAACATT

3801 TCTCTATCGAA