



125

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

**Psp1406I (203)** **HindIII (245)** **Bsu36I (291)** **EcoNI (287)**  
201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACCGCCGCCGCCCTACCTGAGGGCC  
301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC  
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

**NcoI (560)** **BstEII (555)** **Bsp120I (571)** **FspI (584)**  
501 TCTGTTCTGGCGGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATTGGACGAGGGGCCGTGGACCTGCGCACCCGGCCAA  
1 M D E G P V D L R T R P K

**XmaI (612)** **SacII (678)**  
601 GGCCGCGGACTCCCGGGCGCCGCTGCCGCTCCGCAAGCGCCGCTGCGCGGCCCTCCCGGAGCCGCGCTCCCGCGCGCTGCGGGCCTTGTG  
13 A A G L P G A A L P L R K R P L R A P S P E P A A P R G A A G L V

**Bsp120I (748)** **XmaI (745)**  
701 GTCCCTTGACCCTCTGCGCGCGGCTGCGACCTGCCGGCGGTCCCGGGCCCCACGGCCTGGCCGGCCGGAGGCGCTTACTACCCCGGAGCCT  
47 V P L D P L R G G C D L P A V P G P P H G L A R P E A L Y Y P G A

**XcmI (815)** **NcoI (824)** **NcoI (884)**  
801 TACTGCCTTTGTACCCACTCGGGCCATGGGCTCCCGTTCCTCTGTTGAAGCTGCCTACACCCCTATACCCCATGATGTGCCCATGGAACACCCCT  
80 L L P L Y P T R A M G S P F P L V N L P T P L Y P M M C P M E H P L

**NcoI (914)** **BstEII (973)** **ApaLI (988)**  
901 TTCTGCTGACATCGCCATGGCCACCCGTGCAGATGAGGACGGAGACACGCTCTCCATATTGCTGTGGTGAGGGTAACCTGCCAGCTGTGCACCGGCTG  
113 S A D I A M A T R A D E D G D T P L H I A V V Q G N L P A V H R L  
1001 GTCAACCTTCCAGCAGGGGGCCGGAGCTGCAGATCTACAACAACCTACGGCAGACACCGCTCCACCTGGCTGTGATCACCACATTACCGTCTGTGG  
147 V N L F Q Q G G R E L D I Y N N L R Q T P L H L A V I T T L P S V

**NcoI (1130)** **NcoI (1146)**  
1101 TCCGGCTCCTGGTACAGCTGGTCCAGCCCCATGGCGCTGGACCGCCATGGCCAGACGGCGCTCACCTGGCGTGCGAGCACCGCAGCCGACCTGCCT  
180 V R L L V T A G A S P M A L D R H G Q T A A H L A C E H R S P T C L

**Eco72I (1276)** **BbrPI (1276)** **DraIII (1290)**  
1201 GCGAGCCCTGCTGGACAGCGCAGCTCCGGGCACGTTGGACCTGGAGGCCGCAATTATGACGGGCTCACCGCCTGCACGTGGCAGTGAACACCGAGTGC  
213 R A L L D S A A P G T L D L E A R N Y D G L T A L H V A V N T E C

**NotI (1361)** **DraIII (1381)**  
1301 CAAGAAACCGTGCAGCTCTTGCTAGAGCGGTCGCGACATCGACGAGTGGACATTAAGAGCGGCGCTCCCGCTCATCCACGCGCTGGAAAACAACA  
247 Q E T V Q L L L E R G A D I D A V D I K S G R S P L I H A V E N N

**PstI (1423)** **SacII (1491)**  
1401 GCCTAGCATGGTGCAGCTGCTGCTGCAGCAGCGCCAACTGAACGCGCAAATGACTCCGGCAGCTCCGCCCTGCACTCAGCGTCCGGCCGCGGGCT  
280 S L S M V Q L L L Q H G A N V N A Q M Y S G S S A L H S A S G R G L

**FspI (1511)**  
1501 CCTCCCGTGGTGCACGCTGGTCCGACGCGGCTGACAGCAGCCTCAAGAAGTCCACAACGACACGCGGCTCATGGTGGCGCGCAGCCGAGGGTCC  
313 L P L V R T L V R S G A D S S L K N C H N D T P L M V A R S R R V

**Bsu36I (1608)**  
1601 ATCGACATCTGAGGGGAAGGCCACCCGCTGCTTCCACCTCCAGCCAGACCCCTCCCTGACCGGAGCGCAACACCTCCCGGAGAGCAGCAGCC  
347 I D I L R G K A T R P A S T S Q P D P S P D R S A N T S P E S S S

**SmaI (1763)** **NcoI (1781)**  
1701 GCCTCAGTCCAATGGTCTTCTCCGATCACCATCCTCCTCACCTCCAGTCTCCCCCAGGGACCCCTGGATTCCCATGGCTCCTCCAATTT  
380 R L S S N G L L S A S P S S S P S Q S P P R D P P G F P M A P P N F  
1801 CTTCTTCTCCCATCCACCGCTTCCACCGCTTCCGCTTCTGCTGGGCTCCTCCGAGCCCTGGCCGGCGGTGCCCTCCAGCTCCAGGAGGAGC  
413 F L P S P S P P A F L P F A G V L R G P G R P V P P S P A P G G S

**NheI (1910)**  
1901 TGAGGGGATGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAACCTAGAAATGCAGTGAAAAAATGCTTTATTTGTGAAATT  
447 •

**HpaI (2048)** **MfeI (2059)**  
2001 TGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACATTCATTCTTTATGTTTCAGGTTTCAGGGGAGGTGT

**EcoRI (2144)**  
2101 GGGAGTTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGA  
2201 ATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTTCATGGAGTTAAGATAT

**SspI (2383)** **SwaI (2397)**  
2301 AGTGATTTTTCCCAAGTTTGAAGTACTGCTTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATAGTAAATATTTCAGAAATAATT  
2401 TAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCGAGTTTAGTAGTTGGACTTAGG

2501 GAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTT  
 141 • N R T Y K L P I L E E I T T K  
 2601 TGACCAGCTTGCCATTCTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGA  
 125 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 V V R I S  
 2701 TCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCA  
 92 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 A I A E A  
 StuI (2822)  
 Eco147I (2822)  
 2801 CAGACAGTGACCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAAGTCTTGGTCTGATGGCCGCCCGACATGGTCTTGTGTCT  
 58 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 H K N D E  
 BspHI (2972)  
 XmnI (2964)  
 2901 CATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGTCTTTCATGATGGCCCTCTATAGTGAGTCGT  
 25 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  
 VspI (3030)  
 AseI (3030)  
 3001 ATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCATAAACGAGCTCTGCTTAT  
 SpeI (3185)  
 3101 ATAGACCTCCCACGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCCTTGATTTACTAGTCAAAACAA  
 3200 ACTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTA  
 SnaBI (3313)  
 Eco105I (3313)  
 3300 ATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCACTGTACTGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGT  
 NdeI (3418)  
 3400 CAATAGGGGGCGTACTTGGCATATGATACACTTGTACTGCAAGTGGCAGTTTACCCTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTAT  
 PsiI (3597)  
 SdaI (3596)  
 3500 TGGCGTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTACGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCC T  
 PacI (3604) BspLU11I (3614)  
 3600 G C A G G T T A A T T A A G A A C A T G T G A G C A A A A G G C C A G C A A A A G G C C A G G A A C C G T A A A A A G C C G C G T T G C T G G C G T T T T T C C A T A G G C T C C G C C C C C T  
 3698 G A C G A G C A T C A C A A A A A T C G A C G C T C A A G T C A G A G G T G G C G A A C C C G A C A G G A C T A T A A A G A T A C C A G G C G T T T C C C C T G G A A G C T C C C T C G T G C G C T  
 3798 C T C C T G T T C C G A C C C T G C C G T T A C C G G A T A C C T G T C C G C T T T C C C C T T C G G A A G C G T G G C G C T T T C T C A T A G C T C A C G C T G T A G G T A T C T C A G T T C  
 ApaLI (3928)  
 3898 G G T G T A G G T C G T T C G T C C A A G C T G G G C T G T G T C A C G A A C C C C C G T T C A G C C C G A C C G C T G C G C C T T A T C C G G T A A C T A T C G T C T T G A G T C C A A C C C G  
 3998 G T A A G A C A C G A C T T A T C G C C A C T G G C A G C A G C C A C T G G T A A C A G G A T T A G C A G A G C G A G G T A T G T A G G C G G T G C T A C A G A G T T C T T G A A G T G G T G G C C T A  
 4098 A C T A C G G C T A C A C T A G A A G A A C A G T A T T T G G T A T C T G C G C T C T G T G A A G C C A G T T A C C T T C G A A A A A G A G T T G G T A G C T C T T G A T C C G G C A A A C A A A C  
 4198 C A C C G C T G G T A G C G G T G G T T T T T T G T T T G C A A G C A G C A G A T T A C G C G A G A A A A A A G A T C T C A A G A A G A T C C T T T G A T C T T T T A C G G G T C T G A C  
 PacI (4344) SmaI (4353) NotI (4363)  
 4298 G C T C A G T G G A A C G A A A A C T C A C G T T A A G G G A T T T T G G T C A T G G C T A G T T A A T T A A C A T T T A A A T C A G C G G C C G C A A T A A A A T A T C T T T A T T T T C A T T A C A  
 4398 T C T G T G T T G G T T T T T T G T G T A A T C G T A A C T A A C A T A C G C T C C A T C A A A A C A A A A C G A A A C A A A A C A A A C T A G C A A A A T A G G C T G T C C C C A G T G C A  
 4498 A G T G C A G G T G C C A G A A C A T T T C T A T C G A A