



**PvuI (7)**  
**SgfI (6)** MfeI (82) EcoNI (96)  
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

**HindIII (245)** **Bsu36I (291)**  
Psp1406I (203) PvuII (239) EcoNI (287)  
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC  
301 GCCATCCACGCGGTTGAGTGCAGTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

**NgoMIV (441)** **NaeI (441)**  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

**KasI (535)** **AgeI (552)** **BspHI (560)**  
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCATCATGAGCAGAAGCAAGCGTGACAACAATTTTATAGTGT  
1 M S R S K R D N N F Y S V

**EcoRV (635)** **FspI (682)**  
601 AGAGATTGGAGATTCTACATTCACAGTCTGAAACGATATCAGAATTTAAACCTATAGGCTCAGGAGCTCAAGGAATAGTATGCGCAGCTTATGATGCC  
13 E I G D S T F T V L K R Y Q N L K P I G S G A Q G I V C A A Y D A  
701 ATTCTGAAAGAAATGTTGCAATCAAGAAGCTAAGCCGACATTTAGAAATCAGACTCATGCCAAGCGGGCTACAGAGAGCTAGTTCTTATGAAATGTG  
47 I L E R N V A I K K L S R P F Q N Q T H A K R A Y R E L V L M K C

**BsaBI (895)**  
801 TTAATCACAAAAATAATTGGCCTTTGAAATGTTTTACACCACAGAAATCCCTAGAAGAATTTCAAGATGTTTACATAGTCATGGAGCTCATGGATGC  
80 V N H K N I I G L L N V F T P Q K S L E E F Q D V Y I V M E L M D A

**BspHI (933)** **BspHI [m] (931)**  
901 AAATCTTTGCCAAGTGATTCAGATGGAGCTAGATCATGAAAGAATGTCCTACCTTCTCTATCAGATGCTGTGTGAATCAAGCACCTTCATTCTGCTGGA  
113 N L C Q V I Q M E L D H E R M S Y L L Y Q M L C G I K H L H S A G

**MscI (1076)** **PshAI (1066)** **PstI (1085)**  
1001 ATTATTCATCGGGACTTAAAGCCAGTAATATAGTAGTAAATCTGATTGCACCTTTGAAGATTCTTGACCTCGGTCTGGCCAGGACTGCAGGAACAGATT  
147 I I H R D L K P S N I V V K S D C T L K I L D F G L A R T A G T S

**Psp1406I (1174)**  
1101 TTATGATGACGCTTATGTAGTGACTCGCTACTACAGAGCACCCGAGGTATCCTTGGCATGGGCTACAAGGAAAACGTTGACATTTGGTCAGTTGGGTG  
180 F M M T P Y V V T R Y Y R A P E V I L G M G Y K E N V D I W S V G C  
1201 CATCATGGGAGAAATGATCAAAGTGGTGTGTTTGTCCAGGTACAGATCATATTGATCAGTGAATAAAGTTATTGAACAGCTTGAACACCATGTCCT  
213 I M G E M I K G G V L F P G T D H I D Q W N K V I E Q L G T P C P

**BspHI (1304)** **EcoRI (1300)**  
1301 GAATTCATGAAGAACTGCAACCAACAGTAAGGACTTACGTTGAAAACAGACCTAAATATGCTGGATATAGCTTTGAGAACTCTCCCTGATGTCCTTT  
247 E F M K K L Q P T V R T Y V E N R P K Y A G Y S F E K L F P D V L

**Ppu10I (1475)** **NsiI (1475)**  
1401 TCCAGCTGACTCAGAACAACAACAACTTAAAGCCAGTCAGGCAAGGGATTTGTTATCCAAAATGCTGGAATAGATGCATCTAAAAGGATCTCTGTAGA  
280 F P A D S E H N K L K A S Q A R D L L S K M L V I D A S K R I S V D  
1501 TGAAGCTCTCCAACCCGTACATCAATGTCTGGTATGATCCTTCTGAAGCAGAAGCTCCACCACAAAGATCCCTGACAAGCAGTTAGATGAAAGGGAA  
313 E A L Q H P Y I N V W Y D P S E A E A P P P K I P D K Q L D E R E  
1601 CACACAATAGAAGAGTGGAAAGAATTGATATATAAGGAAGTTGACCTGGAGGAGAGAACCAAGAATGGAGTTATACGGGGCAGCCCTCTCCTTTAG  
347 H T I E E W K E L I Y K E V M D L E E R T K N G V I R G Q P S P L

**NheI (1740)** **XcmI (1734)** **MscI (1746)**  
1701 CACAGGTGCAGCAGTGATCAATGGCTCTCAGCATCCATCAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAACCTAGAATG  
380 A Q V Q Q •

**HpaI (1878)** **MfeI (1889)**  
1801 CAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACATTGCATTC

**EcoRI (1974)**  
1901 ATTTTATGTTTCAGGTTCCAGGGGAGGTGTGGGAGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTCTAAAATACAGCATAGCAAAA  
2001 CTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTCGAG  
2101 CCTCACCTCTTTTATGAGTAAAGATATAGTATTTTCCCAAGTTTGAAGTCTCTTCTTTATGTTTTTAAATGCACTGACCTCCACATT

**SspI (2213)** **Swal (2227)** **EcoO109I (2288)**  
2201 CCCTTTTTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATA  
2301 ATATCCCCAGTTTGTAGTTGGACTTAGGGAACAAAGGAACCTTAAATAGAATTTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACT  
141 • N R T Y K  
2401 TGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCA  
135 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 Y D S I L E R C

BstXI (2517)  
2501 CATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTC  
102 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 D F D K Q G N S

StuI (2652)  
2601 ACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCCTGA  
68 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 I I E G T K T R I

BbsI (2798)  
2701 TGGCCGCCCCGACATGGTGTCTTGTCTCATAGAGCATGGTGTCTTCTCAGTGGCAGCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGT  
35 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 D Q Q S I N F T

BspHI (2802) AseI (2860)  
2801 CTTCATGATGGCCCTCCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTAT  
2 K M

2901 CTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAA

SpeI (3015)  
3001 AAGTCCCCTTGATTTACTAGTCAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAAATCCCCGTGAGTCAAACCGCTATCCACGCCCATG

SnaBI (3143)  
3100 ATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCACTGTACTGGGCATAAT

NdeI (3248)  
3200 GCCAGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTC  
3300 CACCATTGACGTCAATGAAAAGTCCCTATTGGCGTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCTGTTGGCGGTCCAGCCAGCC

PstI (3427) SdaI (3426) PacI (3434) BspLU11I (3444)  
3400 GGGCCATTTACCGTAAGTTATGTAACGCC T 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 G C C G T T G  
3498 CTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGG  
3598 CGTTTCCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTCGACCTGCCGTTACCGGATACCTGTCCGCTTCTCCCTTCGGGAAGCGTGGCGCTTTC

ApaLI (3758)  
3698 TCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCGCTGCGCCTTA  
3798 TCCGGTAACTATCGTCTTGAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGC  
3898 GTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAG  
3998 AGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAA

EagI (4194) PacI (4174) SmaI (4183) NotI (4193)  
4098 GATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGG  
4198 CCGCAATAAAAATATCTTTATTTTATTACATCTGTGTGTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAAC  
4298 AAAC TAGCAAAAATAGGCTGTCCCAAGTCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA