



150

**PvuI (7)**  
**SgfI (6)** 1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA  
**MfeI (82)**  
101 GAGAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTACTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC

**Psp1406I (203)** 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACGCGCCCGCCCTACCTGAGGCC  
**HindIII (245)**  
301 GCCATCCACGCGGGTTGAGTCGCGTTTCTGCCGCCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGCTTTTGTTCGTTT

**NcoI (560)**  
**BstEII (555)** 501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCCTACCTGAGATCACCGGTACCATGGAGAACACGGCCATCATGAGATGGAAGGCACCCC  
**AgeI (552)** 1 M E E H G H H E M E G T P  
**BspHI (579)**

601 ATTGGGTTGTCACCTCCACATTAACACTGCTGAAGATCAACAGGGAACATCTGGTCACCAACATTCGGAACACTCAGTGTCTGGTGGACAACCTGCTGGAG  
13 L G C H S H I K L L K I N R E H L V T N I R N T Q C L V D N L L E  
**BstEII (651)** 701 AATGGCTACTTCTCAGCCGAAGATGCAGAGATTGTGTGCTGTCCACCAAGCCTGACAAGTCCGAAAGATCCTTGACCTGGTGCAGAGCAAAGGCG  
47 N G Y F S A E D A E I V C A C P T K P D K V R K I L D L V Q S K G  
**DraIII (669)** 801 AGGAGGTGCTGAGTTCTTCTCTACGTGCTGCAGCAGCTGGAGGATGCTTACGTGGACCTCAGGCTGTGGCTCTCAGAAATTGGCTTCTCCCTTCCCA  
80 E E V S E F F L Y V L Q Q L E D A Y V D L R L W L S E I G F S P S Q  
**Tth111I (757)**  
901 GCTCATTCCGACCAAACTATCGTCAATACTGACCCAGTAAGCAGGTATACCAACAGCTGCGACACCAACTGGGCCGCGACTCCAAGTTCATGCTGTGC  
113 L I R T K T I V N T D P V S R Y T Q Q L R H Q L G R D S K F M L C  
**AvrII (1089)**  
1001 TACGCCAGAAGGAGGACCTGCTGCTGGAGGAGACCTATATGGACACACTCATGGAGCTGGTAGCCTCAACAATGAAAACCTGGGCAGCCTAGGAGGCC  
147 Y A Q K E D L L L E E T Y M D T L M E L V G F N N E N L G S L G G  
1101 TGGATTGCCTGCTGGACCACAGTACGGCGTCTCAACGAGCATGGCGAGACTGTCTTCTGTTCCGGGACGCGGGAGTGGGCAAGTCCATGCTGCTGCA  
180 L D C L L D H S T G V L N E H G E T V F V F G D A G V G K S M L L Q  
1201 GAGGTTGCAGAGCCTCTGGCGTCAGGCAGGTTGACCTCCACAGCAAATCTTCTTCACTTCCGCTGCCGCATGTTCAAGTGTCAAGGAGAGCGAC  
213 R L Q S L W A S G R L T S T A K F F F H F R C R M F S C F K E S D  
**Eco47III (1395)**  
1301 ATGCTGAGTCTGCAGGACCTGCTCTTCAAGCATTCTGCTACCCGGAGCAGGACCCCGAGGAGGTGTTCTCTTCTTGTGCGCTTTCCACACAGCGC  
247 M L S L Q D L L F K H F C Y P E Q D P E E V F S F L L R F P H T A  
1401 TTTTACCTTTGACGGCTGGATGAGCTGCAGCTCAGACTTCGACCTGAGCCGCGTCCGGATGACTGCTGCCCTGGGAGCCGCTCACCTCTGGVCT  
280 L F T A T T D G L D E L H S D F L S R V P D S C C P W E P A H P L L  
**FspI (1589)**  
1501 GCTGGCTAACCTCCTAAGTGGGAGGCTGCTCAAGGTTGCCGGCAAATTGCTCACTGCTCGCACAGGCGTGGAGGTCCCGGCCAGCTCCTGCGCAAAAAG  
313 L A N L L S G R L L K G A G K L L T A R T G V E V P R Q L L R K K  
**BssHII (1632)**  
1601 GTGCTGCTCCGGGCTTCTCCCAAGTCACTGCGCGCCTATGCCGCGGATGTTCCCGAGCGCACAGCGCAGGAGCATCTGCTGCAGCAGCTGGATG  
347 V L L R G F S P S H L R A Y A R R M F P E R T A Q E H L L Q Q L D  
**BsrBI (1732)**  
1701 CCAACCCCAACTCTGCAGCCTGTGCGGGTCCGCTCTTCTGTTGGATCATCTTCCGTTGTTTCCAGCACTTCCAGACGGTCTTCGAGGGCTCTCTTC  
380 A N P N L C S L C G V P L C T C W I I F R C F Q H F Q T V F E G S S S  
**PshAI (1827)**  
1801 ACAGTTGCCGACTGTGCTGTGACCCTGACCGATGCTTTCTGCTGCTCACTGAGGTGCATCTGAACAGGCCGAGCCAGCAGCCTGGTGCAGCGCAAC  
413 Q L P D C A V T L T D V F L L V T E V H L N R P Q P S S L V Q R N  
**SphI (1944)**  
1901 ACGCGAGCCCGGCGAAACCTACGTGCAGGCTGGCGCAGCTGCATGCGCTGGGAGAGGTGGCTCACCGAGGCACGACAAGAGCCTTTTGTGTTTG  
447 T R S P A E T L R A G W R T L H A L G E V A H R G T D K S L F V F  
**BglIII (2037)** 2001 GCCAGGAGGAGTGCAGGCGTCAAGACTGCAGGAAGATCTGCAGCTGGGCTTCTGCGGGCTTTGCCGATGTGGCCCTGAGCAGGCCAGTCTTA  
480 G Q E E V Q A S K L Q E G D L Q L G F L R A L P D V G P E Q G Q S Y  
**Bsp120I (2076)**  
**XmaI (2171)** 2101 CGAATTTTCCACCTTACGCTCCAGGCCTTCTTCCACCGCTTCTTCTGTTAGCAGATGACAAAGTGAACACCCGGGAGTTGCTGAGGTTCTTTTCGAGAA  
513 E F F H L T L Q A F F T A F F L V A D D K V S T R E L L R F F R E  
**Bsp120I (2283)**  
2201 TGGACGCTCCTGGAGAGGCAACAAGCTCGTCTGCCATTCTTCTTCTTCTTCTTCCAGTGCCTGGGCGGAGAAAGCCGGTTGGCCCTGATCCTTTCA  
547 W T S P G E A T S S S C H S S F F S F Q C L G G R S R L G P D P F  
2301 GGAACAAAGATCACTTCCAGTTCACCAACTCTTCTGTGCGGGTACTGGCCAAAGCCGACAGAACTCCTTCGGCAGCTGGTGCACCAAGGCTATCCT  
580 R N K D H F Q F T N L F L C G L L A K A R Q K L L R Q L V P K A I L  
**NheI (2437)** 2401 GAGGAGGAAGCGCAAGGCCCTGTGGGCTCACCTGTTTGTAGCCTGCGCTCTACTTGAAGAGCTACCTCGGGTCCAGTCTGGAGGCTTTAACCAGGTG  
613 R R K R K A L W A H L F A S L R S Y L K S L P R V Q S G G F N Q V  
2501 CATGCCATGCCACATCTGTGGATGCTGCGTGCATCTAGACTGAGCAGCAGAGGTTGGGGCGCCTCGCCGACAGGGGCGATCAGTGGGACTACC  
647 H A M P T F L W M L R C I Y E T Q S Q K V G R L A A R G I S A D Y  
2601 TCAAGCTGGCCTTTTGAACGCTTGTCTGCGGACTGCAGCGCCTGTCTTCTGCTGCTGCTCACTTCCACAGGCAGCTGGCCCTAGACCTGGACAACAA  
680 L K L A F C N A C S A D C S A L S F V L H H F H R Q L A L D L D N N  
**SphI (2499)**



5597 TCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGT  
5697 GGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGG  
5797 CAAACAAACCACCCTGGTAGCGGTGGTTTTTTTGTGGTCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACG

5897 GGGTCTGACGCTCAGTGGAACGAAAACACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC **EagI (5972)**  
**NotI (5971)** Pacl (5952) SwaI (5961) AGCGCCGCAATAAAATATCTTTATT  
5997 TTCATTACATCTGTGTGGTTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTC  
6097 CCAGTGCAAGTGCAAGTGCCAGAACATTTCTCTATCGAA