



**PvuI (7)**  
**SgfI (6)**  
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA  
101 GAGAAGGTGGCGGGGTAAGCTGGGAAAGTGTGTCGTGACTGGCTCCGCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

**Psp1406I (203)**  
**Bsu36I (291)**  
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCAGAGGGCTCGCATCTCTCCTTACGCGCCCGCCCTACCTGAGGCC  
301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCCCTCCCGCTGTGGTGCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTAAAGCTCAGGTCGAGACC

**NgoMIV (441)**  
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCCACGCTTTGCTGACCCTGCTTCTCAACTCTACGTCTTTGTTTCGTTT

**KasI (535)**  
**BspEI (558)**  
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCGCTA  
601 ATTAGTCAGGAAGGAAGTGTAAACAAAAAGAAAAACAGCCAACACAGAAAGACAACCAAGGGAGCAACAAAAATGTGGCATCAGTCAAGACTTTA  
111 L V R K E D V N K K K K N S Q L R K T T K G A N K N V A S V K T L  
701 AGCCTGGAAATTAAGCAATTAATCAAGAAAGAGATGTTAAGAAAAAACAGAACCTAAACCACCGTGCCAGTCAGAAGCCTTCTGACAAGAGCTG  
45 S P G K L K Q L I Q E R D V K K K A T E P K P P V P V R S L L T R A  
801 GACGACGCGATGAATTTGGATAGGACTGAGTCTTTTTTCAGAACCCAGAGTCTTAACCTGCAATGGGTTTACAATGGCGCTACGAAGCACCCTCTCT  
78 G A A R M N L D R T E V L F Q N P E S L T C N G F T M A L R S T S L  
901 TAGCAGGGGACTCTCCCAACCCCACTGGTCGTAGCCAATCCAAAAAGTTCACCTTTCTAAGGGTTAGAAAAACAACATGATTGTGATTATAAGATA  
111 S R R L S Q P P L V V A K S K K V P L S K G L E K Q H D C D Y K I  
1001 CTCCTGCTTTGGGAGTAAAGCACTCAGAAAAATGATTCGGTCCAAATGCAAGACACCAAGTCTTCTGATATAGAGACTCTAATTGGTGTACAAAATC  
145 L P A L G V K H S E N D S V P M Q D T Q V L P D I E T L I G V Q N

**BsaBI (1167)**  
1101 CCTCTTACTTAAAGGTAAGAGCAAGAGACAACCTCAGTTTTGGTCCAAAGAGTTGAGGATCCAAAGATCAATATCCCTACCCACAGTGGCCCTGCAGC  
178 P S L L K G K S Q E T T Q F W S Q R V E D S K I N I P T H S G P A A  
1201 TGAGATCCTTGGCCACTGGAAGGACACGCTGTGGTGAAGACTATTCTGAAGAGACATTGAATGATACCAGTGGTTCACAAAAATGTTTGGCT  
211 E I L P G P L E G T R C G E G L F S E E T L N D T S G S P K M F A  
1301 CAGGACACAGTGTGTCTCTTTTCCCAAGAGCAACCCCAAAAGTTACCTCTCAGGAAACCCAGCATTGAGTGAAGAGTTGGGTTACAGGATAG  
245 Q D T V C A P F P Q R A T P K V T S Q G N P S I Q L E E L G S R V

**BamHI (1428)**  
1401 AATCTCTTAAGTTATCTGATTCTTACCTGGATCCCAATAAAAAGTGAACATGATTGCTACCCACCTCCAGTCTTAATAAGTTATACCTGACTTGAACCT  
278 E S L K L S D S Y L D P I K S E H D C Y P T S S L N K V I P D L N L  
1501 TAGAACTGCTTGGCTCTTGGTGGGCTACGTCTCTACCTCTGTAATAAAAATTCCTCTTGGCAGGCTCAAAAACAGCACCTTGGTGTAAACAGAT  
311 R N C L A L G G S T S P T S V I K F L L A G S K Q A T L G A K P D

**BstBI (1612)**  
**BstBI (1612)**  
**AvrII (1659)**  
1601 CATCAAGAGGCCCTTGAAGCTACTGCAAAATCAACAGGAAGTTTCTGATACCACCTCTTTCCTAGGACAGGCTTTGGTGTATCCACATCAATGGGAAC  
345 H Q E A F E A T A N Q Q E V S D T T S F L G Q A F G A I P H Q W E

**BglIII (1746)**  
1701 TTCCTGGTGTGACCCAGTTCATGGTGAGGCCCTGGTGGAGACCCAGATCTACCAGAGATTCTGGTGTATCCAGTCCAAGGAGAGGTTCTTGGTAC  
378 L P G A D P V H G E A L G E T P D L L P E I P G A I P V Q G E V F G T  
1801 TATTTAGACCAACAAGAACTCTGGTATGAGTGGGAGTGTGTCCAGACTTGCTGTCTTCTTCTGCTTCCAAATCAATGCTACCTTTAAT  
411 I L D Q Q E T L G M S G S V V P D L P V F L P V P P N P I A T F N

**NdeI (1937)**  
1901 GCTCCTTCCAAATGGCCTGAGCCCCAAAGCACTGTCTCATATGGACTTGCACTCCAGGGTGTATACAGATTTTGCTTTGGGCTCAGGACACTCCTC  
445 A P S K W P E P Q S T V S Y G L A V Q G A I Q I L P L G S G H T P  
2001 AATCATCAAACCTCAGAGAAAAATTCATTACCTCCAGTAATGGCTATAAGCAATGTAGAAAATGAGAAGCAGGTTCAATAAGCTTCTGCCAGCTAA  
478 Q S S S N S E K N S L P P V M A I S N V E N E K Q V H I S F L P A N  
2101 CACTCAGGGTCCCACTAGCCCTGAGAGAGGACTCTTCATGCTTCACTGGGTATAGCCCAACTCTCTCAGGCTGGTCTAGCAAATCAGACAGAGGG  
511 T Q G G F P L A C P E R G L F H A S L G I A Q L S Q A G P S K S C D R G  
2201 AGCTCCAGGTGCTGTAACACAGCACAGTTCATGTTGTCAACACCACAGTGGTACTATGCCAGTGCCAATGGTCACTACCTCCTCTTCTTCTATACCA  
545 S S Q V S V T S T V H V V N T T V V T M P V P M V S T S S S Y T  
2301 CTTTGCTACCGACTTTGGAAAAGAAAGAAAGAAAGCGATGTGGGGTCTGTGAACCCTGCCAGCAGAAGACCAACTGTGGTGAATGCACCTACTGCAAGAA  
578 T L L P T L E K K K R K R C G V C E P C G Q Q K T N C G E C T Y C K N

**BglIII (2417)**  
2401 CAGAAAGAACAGCCATCAGATCTGTAAGAAAAGAAAATGTGAGGAGCTGAAAAGAAAACCATCTGTTGTTGTGCCCTGGAGGTTATAAGGAAAACAAG  
611 R K N S H Q I C K K R K C E E L K K K P S V V V P L E V I K E N K

**NcoI (2579)**  
2501 AGGCCCCAGAGGGAAAAGAACGCCAAAAGTTTTAAAGGCAGATTTTGAACAACAACAGTAAATGGCCCCAAGTCAAGATCCATGGACTACAGTAGATGTG  
645 R P Q R E K K P K V L K A D F D N K P V N G P K S E S M D Y S R C  
2601 GTCATGGGGAAGAACAATAAATTGAATTAACCATACTGTTGAAAATGTAACATAAAAATGAAGACAGCATGACAGGCATCGAGGTGGAGAAGTGGAC  
678 G H G E E Q K L E L N P H T V E N V T K N E D S M T G I E V E K W T

**BbrPI (2728)**  
2701 AAAAAACAAGAAATCACAGTTAAGTATCAGCTGAAAGGAGATTTTAGTGCTAATGTCCAGAAAGTGAATAAATCGAAAACTCTGAAGTTGACAAGAAA  
711 Q N K K S Q L T D H V K G D F S A N V P E A E K S K N S E V D K K  
2801 CGAACCAATCTCCAAAATTGTTGTACAAACCGTAAGAAAATGGCATTAAACATGTACTGTTTACCAGCTGAAAACAAATGTTTCATTTAAAAAATTC  
745 R T K S P K L F V Q T V R N G I K H V H C L P A E T N V S F K K F  
2901 ATATTGAAGAATTCGGCAAGACATTGAAAACAATCTTATAAATTCATAAAGCACTGCAACCATAAAAACGCTATGAGCTCTGTTGCTACTGATAT  
778 N I E E F G K T L E N N S Y K F L K D T A N H K N A M S S V A T D M

Psp1406I (3028)

3001 GAGTTGTGATCATCTCAAGGGGAGAAGTAAACGTTTTAGTATCCAGCAGCCTGGCTTTAACTGCAGTTCATTCCACATTCTTCACACTCCATCATAAAT  
811▶ S C D H L K G R S N V L V F Q Q P G F N C S S I P H S S H S I I N

Bst1107I (3110)

3101 CATCATGCTAGTATACACAATGAAGGTGATCAACCAAAAACTCCTGAGAATATACCAAGTAAAGAACCAAAAGATGGATCTCCCGTTCAACCAAGTCTCT  
845▶ H H A S I H N E G D Q P K T P E N I P S K E P K D G S P V Q P S L  
3201 TATCGTTAATGAAAGATAGGAGATTAACATTGGAGCAAGTGGTAGCCATAGAGGCCCTGACTCAACTCTCAGAAGCCCATCAGAGAATTCTCCCATC  
878▶ L S L M K D R R L T L E Q V V A I E A L T Q L S E A P S E N S S P S  
3301 AAAGTCAGAGAAGGATGAGGAATCAGAGCAGAGAACAGCCAGTTTCTTAATAGCTGCAAAGCTATCCTCTACACTGTAAAGAAAAGACCTCCAAGACCA  
911▶ K S E K D E E S E Q R T A S L L N S C K A I L Y T V R K D L Q D P  
3401 AACCTACAGGGAGAGCCACCAAACTTAATCACTGTCCATCTTTGGAAAAACAAAGTTCATGCAACACGGTGGTTTTCAATGGGCAAACTACTACCCTTT  
945▶ N L Q G E P P K L N H C P S L E K Q S S C N T V V F N G Q T T T L  
3501 CCAACTCAGATCAACTCAGCTACTAACCAAGCATCCACAAAGTACATGAATTTCAAAGTACAAAATTCATTATCTCTTTTTATACCAAAATCAA  
978▶ S N S H I N S A T N Q A S T T K S H E Y S K V T N S L S L F I P K S N

BsaBI (3667)

3601 TTCATCCAAGATTGACACCAATAAAAAGTATTGCTCAAGGGATAATTACTCTTGACAATTGTTCCAATGATTTGTCATCAGTTGCCACCAAGAAATAATGAA  
1011▶ S S K I D T N K S I A Q G I I T L D N C S N D L H Q L L P P R N N E  
3701 GTGGAGTATTGCAACAGTTACTGGACAGCAGCAAAAAATTGGACTCAGATGATCTATCATGTGAGGATGCAACCCATACCCAAATGAGGAAGATGTTG  
1045▶ V E Y C N Q L L D S S K K L D S D D L S C Q D A T H T Q I E E D V  
3801 CAACACAGTTGACACAACCTGCTTCGATAATTAAGATCAATTATATAAAACCAGAGGACAAAAAGTTGAAAGTACACCAACAAGCCTTGTACATGTAA  
1078▶ A T Q L T Q L A S I I K I N Y I K P E D K K V E S T P T S L V T C N  
3901 TGTACAGCAAAAATAACAATCAGGAGAAGGGCACAATAACAAGAACCCACTTCAAGTGTACACAATAATCATGGTTCCATTAACAAAAACAAAAGAAC  
1111▶ V Q Q K Y N Q E K G T I Q Q K P P S S V H N N H G S S L T K Q K N  
4001 CCAACCCAGAAAAAGACAAAATCCACCCATCAAGAGATCGGCGGAAAAAGAGCCACAGTTGTAAGTTATCAAGAAAATGATCGGCAGAAAGTGGGAAA  
1145▶ P T Q K K T K S T P S R D R R K K K P T V V S Y Q E N D R Q K W E  
4101 AGTTGCTCTATATGTATGGCACAATATCGACATTTGGATAGCATGAAATTTCAAATTTTGGGCAATTTTGTCCACATGATTTTCTACTGTATTTGG  
1178▶ K L S Y M Y G T I C D I W I A S K F Q N F G Q F C P H D F P T V F G  
4201 GAAAATTTCTTCCGACCAAAATGGAACACTGGCTCAAACGAGTCCATTATGCAACCCAAAACAGTATTTCCACCACACTCAGATGAAAATTA  
1211▶ K I S S S T K I W K P L A Q T R S I M Q P K T V F P P P L T Q I K L

EcoRV (4304)

4301 CAGAGATATCCTGAATCAGCAGAGGAAAAAGGTGAAGGTTGAACCATTGGATTCACTCAGCTTATTTTCATCTTAAAAACGGAATCCAACGGGAAGGCATTCA  
1245▶ Q R Y P E S A E E K V K V E P L D S L S L F H L K T E S N G K A F  
4401 CTGATAAAGCTTATAATTCAGGTACAGTTAACGGTGAATGCCAATCAGAAAAGCCATCCTTTGACCCAGCCCTCTCTCCACCTAACCAAGTGTGCTAA  
1278▶ T D K A Y N S Q V Q L T V N A N Q K A H P L T Q P S S P P N Q C A N

NsiI (4555)

BspHI (4590)

4501 CGTGATGGCAGGCGATGACCAAAATACGGTTTCAGCAGGTTGTTAAGGAGCAACTATGCATCAGAGACTGCCAACATTGCCTGGTATCTCTCATGAAACA  
1311▶ V M A G D D Q I R F Q Q V V K E Q L M H Q R L P T L P G I S H E T  
4601 CCCTTACCGGAGTCAGCACTAATCTCAGGAATGTAATGTAGTGTGTTCAAGTGGAAATTACAGTGGTTTCTACCAAAAGTGAAGAGGAACTGTGTTCA  
1345▶ P L P E S A L T L R N V N V V C S G G I T V V S T K S E E E V C S

ApaLI (4736)

4701 CCAGTTTTGGAACATCAGAATTTCCACAGTGGCAGCAGAAAAATTTAATGATTATGCCATGAACCTCTTTACTAACCCCTACAAAAACCTAGT  
1378▶ S S F G T S E F S T V D S A C Q K N F N D Y A M N F F T N P T K N L V  
4801 GTCTATACTAAAGATTCTGAACCTGCCACCTGCAGCTGTCTTGATCGAGTTATACAAAAAGACAAAGGCCATATTATACACACCTTGGGGCAGGACCA  
1411▶ S I T K D S E L P T C S C L D R V I Q K D K G P Y Y T H L G A G P

AgeI (4981)

4901 AGTGTGCTGCTGTGTCAGGAAATCATGGAGAATAGGTATGGTCAAAAAGGAAACGCAATAAGGATAGAAATAGTAGTGTACACCGTAAAGAAAGGAAAA  
1445▶ S V A A V R E I M E N R Y G Q K G N A I R I E I V V Y T G K E G K  
5001 GCTCTCATGGGTGTTCAATTGCTAAGTGGGTTTTAAGAAGAAGCAGTGTGAAAGAAAAGTTCTTTGTTGGTCCGGCAGCGTACAGGCCACCACTGTCC  
1478▶ S S H G C P I A K W V L R R S S D E E K V L C L V R Q R T G H H C P  
5101 AACTGCTGTGATGGTGGTCTCATGTTGGTGGGATGGCATCCCTCTTCCAATGGCCGACCGGCTATACACAGAGCTCACAGAGAATCTAAAGTCATAC  
1511▶ T A V M V L I M V W D G I P L P M A D R L Y T E L T E N L K S Y  
5201 AATGGGCACCTACCGACAGAAGATGCACCTCAATGAAATCGTACCTGTACATGTCAAGGAATTGATCCAGAGACTGTGGAGCTTCTTTCTTTTGG  
1545▶ N G H P T D R R C T L N E N R T C T C Q G I D P E T C G A S F S F  
5301 GCTGTTGATGAGTGTACTTTAATGGCTGTAAGTTGGTAGAAGCCCAAGCCCAAGATTTAGAATTGATCCAAGCTCTCCCTTACATGAAAAAAA  
1578▶ G C S W S M Y F N G C K F G R S P S P R R F R I D P S S P L H E K N  
5401 CCTTGAAGATAACTTACAGAGTTTGGCTACACGATTAGCTCCAATTTAAGCAGTATGTCTCAGTAGCTTACAAAAATCAGTGGAAATGAAAATGTT  
1611▶ L E D N L Q S L A T R L A P I Y K Q Y A P V A Y Q N Q V E Y E N V  
5501 GCCCGAGAATGTCGGCTTGGCAGCAAGGAAGTGTCCCTTCTCTGGGGTCACTGCTTGCCTGGACTTCTGTGCTCATCCCCACAGGGACATTCAACA  
1645▶ A R E C R L G S K E G R P F S G V T A C L D F C A H P H R D I H N

XhoI (5633)

BsrBI (5646)

5601 TGAATAATGGAAGCACTGTGGTTTTGTACTTAACCTGAGAAGATAACCCGCTTTTGGGTGTTATTCTCAAGATGAGCAGCTCCATGTGTACTCTTTTA  
1678▶ M N N G S T V V C T L T R E G A D N R S L G V I P Q D E Q L H V L P L Y  
5701 TAAGCTTTCAGACACAGATGAGTTTGGCTCCAAGGAAGGAATGGAAGCAAGATCAAATCTGGGGCCATCGAGGTCTGGCACCCCGCCGAAAAAAGA  
1711▶ K L S D T D E F G S K E G M E A K I K S G A I E V L A P R R K K R  
5801 ACGTGTTCCTCAGCCTGTTCCCGTCTGGAAGAAGAGGGCTGCGATGATGACAGAGGTTCTTGCACATAAGATAAGGGCAGTGGAAAAGAAACCTA  
1745▶ T C F T Q P V P R S G K K R A A M M T E V L A H K I R A V E K K P

Bsu36I (5966)

5901 TTCCCGAATCAAGCGGAAGAATAACTCAACAACAACAACAACAGTAAGCCTTCGTCACTGCCAACCTTAGGGAGTAACACTGAGACCGTGCACCTGA  
1778▶ I P R I K R K N N S T T T N N S K P S S L P T L G S N T E T V Q P E

BsrBI (6074)

6001 AGTAAAAAGTGAACCGAACCCATTTTATCTTAAAAAGTTTCAAGCAACTAAAACTTATTCGCTGATGCCATCCGCTCTCACCCAGTGAAGAGGCA  
1811▶ V K S E T E P H F I L K S S D N T K T Y S L M P S A P H P V K E A  
6101 TCTCCAGGCTTCTCTGTTCCCGAAGACTGCTTCAGCCACACAGCTCCACTGAAGAATGACGCAACAGCCTCATGCGGGTTTTTCAGAAAAGAACGAGCA  
1845▶ S P G F S W S P K T A S A T P A P L K N D A T A S C G F S E R S S

6201 CTCCCCTGTACGATGCCTTCGGGAAGACTCAGTGGTGCCAATGCAGCTGCTGCTGATGGCCCTGGCATTTCACAGCTTGGCGAAGTGGCTCCTCTCCC  
1878▶ T P H C T M P S G R L S G A N A A A A D G P G I S Q L G E V A P L P  
6301 CACCCTGTCTGCTCCTGTGATGGAGCCCTCATAATTCTGAGCCTCCACTGGTGTGACTGAGCCGCTAACGCTCATCAGCCAAACCACGACCCCTCC  
1911▶ T L S A P V M E P L I N S E P S T G V T E P L T P H Q P N H Q P S  
6401 TTCTCACCTCTCCTCAAGACCTTGCCTCTTCTCAATGGAAGAAGATGAGCAGCATTCTGAAGCAGATGAGCCTCCATCAGACGAACCCCTATCTGATG  
1945▶ F L T S P Q D L A S S P M E E D E Q H S E A D E P P S D E P L S D

MscI (6593)

6501 ACCCCCTGTACCTGCTGAGGAGAAATTGCCCCACATTGATGAGTATTGGTCAGACAGTGGCACATCTTTTTGGATGCAAAATATTGGTGGGGTGGCCAT  
1978▶ D P L S P A E E K L P H I D E Y W S D S E H I F L D A N I G G V A I  
6601 CGCACCTGCTCACGGCTCGGTTTTGATTGAGTGTGCCCGGCGAGAGCTGCACGCTACCACTCTGTTGAGCACCCCAACGTAATCATCAACCCGCCTC  
2011▶ A P A H G S V L I E C A R R E L H A T T P V E H P N R N H P T R L  
6701 TCCCTGTCTTTACCAGCACAAAAACCTAAATAAGCCCAACATGGTTTTGAACTAAACAAGATTAAGTTTGAAGCTAAAGAAGTAAAGAATAAGAAAA  
2045▶ S L V F Y Q H K N L N K P Q H G F E L N K I K F E A K E A K N K K  
6801 TGAAGCCCTCAGACAAAAGACCAGGCAGCTAATGAAGGTCCAGAAGTCTCTGAAGTAAATGAATTGAACCAAATTCCTTCTCATAAAGCATTAAC  
2078▶ M K A S E Q K D Q A A N E G P E Q S S E V N E L N Q I P S H K A L T

MscI (6985)

Bsp120I (6955)

NheI (6979)

6901 ATTAACCCATGACAATGTTGTACCGTGTCCCTTATGCTCTCACACAGTTCGCGGGCCCTATAACCATTGGGCTGAGCTAGCTGGCCAGACATGATA  
2111▶ L T H D N V V T V S P Y A L T H V A G P Y N H W V •  
7001 AGATACATTGATGAGTTTGGACAAACCACAAC TAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTA

7101 TAAGCTGCAATAAACAAGTTAACACAACAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTA

7201 CAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGG

SapI (7395)

7301 CATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTCCCAAGGTTGAAGTAGCTCT

SwaI (7466)

7401 TCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTT

7501 TTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACA

7601 GCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTTCATCTCAATGAGCAC

141

• N R T Y K L P I L E E I T T K V L K G N M E I L V

7701 AAAGCAGTCAGGAGCATAGTCAGAGATGAGTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTG

115▶ 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 Y P H R

7801 ACAGCCACAATGGTGTCAAAGTCTTCTGCCCCTTGTCTACAGCAGACCCAATGGCAATGGTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAA

81▶ 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 I Y A E I

7901 TGTGGACAGCAGAGATGATCTCCCCAGTCTGGTCTGATGGCCGCCCGACATGGTCTTGTGTCCCTCATAGAGCATGGTGTCTTCTCAGTGGCGAC

48▶ 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 K E T A V

BspHI (8041)

8001 CTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTCCTATAGTGAGTCTATTATACTATGCCGATATACTATGCCGATGA

15▶ E V L E L D Q Q S I N F T K M

8101 TTAATTGTCAAAACAGCGTGGATGGCGTCTCCAGCTTACTCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCC

SpeI (8254)

8201 ATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAACTCCCATTGACGTCAATGGGGTGGAGACTTG

SnaBI (8382)

8301 GAAATCCCGTGAGTCAAACCGCTATCCAGGCCATTGATGTAAGTCCAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCCA

NdeI (8487)

8401 AGTAGGAAAGTCCATAAGGTACTGTAAGTGGGCATAATGCCAGGCGGGCCATTACCGTCAATGAGGGGCGTACTTGGCATATGATACACT

8501 TGATGTAAGTCCAAAGTGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCAATTATTG

PacI (8673)

SdaI (8665)

8601 ACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCCTAAGTTATGTAACGCTGCAGGTTAATAAGAACATGTGAGCAAAAGGC

8701 CAGCAAAAGGCCAGGAACCGTAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGA

8801 GGTGGCAAAACCCGACAGGACTATAAGATACCAGGCGTTTTCCCCTGGAAGCTCCCTCGTGGCTCTCTGTTCCGACCCTGCCGTTACCGGATACCT

ApaLI (8997)

8901 GTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGATGATCTCAGTTCGGTGTAGGTCGTTCCGTCGAAGCTGGGCTGTGTG

9001 CACGAACCCCGTTTCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGTAGTCCAAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCA

9101 CTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGAGTCTTGAAGTGGTGGCCTAACACGGCTACACTAGAAGAACAGTATTTGGTAT

9201 CTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGTATCCGGCAAAACACCCGCTGGTAGCGGTGGTTTTTTGTTTGAAG

9301 CAGCAGATTACGGCAGAAAAAAGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTT

**EagI (9433)**

PacI (9413) SwaI (9422) **NotI (9432)**

9401 TGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTA

9501 ACATACGCTCTCCATCAAAACAAAACGAAACAAAACAAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA