



PvuI (7)
SgfI (6)
1 GGATCTGGATCGCTCCGGTGCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Bsu36I (291)
Psp1406I (203) **HindIII (245)** **EcoNI (287)**
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACCGCGCCCGCCGCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTGCAGTCTGCCGCTCCCGCCTGTGGTGCCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

AgeI (552) **NcoI (568)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGTAGGAGGGCCACCATGGTCAGCTACTGGACACCGGGTCTCTG
1 M V S Y W D T G V L

BssHII (604) **BstAPI (689)**
601 CTGTGCGCGCTGCTCAGCTGTCTGCTTCTCACAGGATCTAGTTCAGGTTCAAATTTAAAGTCTGAACTGAGTTTAAAGGCCACCCAGCACATCATGC
11 L C A L L S C L L L T G S S S G S K L K D P E L S L K G T Q H I M
701 AAGCAGGCCAGACTGCATCTCAATGCAGGGGGAAGCAGCCATAAATGGTCTTTGCTGAAATGGTGAAGTAAAGGAAAGGCTGAGCATAAC
44 Q A G Q T L H L Q C R G E A A H K W S L P E M V S K E S E R L S I T

ScaI (837)
801 TAAATCTGCCTGTGGAAGAAATGGCAAACAATTCTGCAGTACTTTAACCTTGAACACAGCTCAAGCAAACCACTGGCTTCTACAGCTGCAAAATATCTA
77 K S A C G R N G K Q F C S T L T L N T A Q A N H T G F Y S C K Y L

BsrGI (982)
901 GCTGTACCTACTTCAAAGAAGAAGAAACAGAATCTGCAATCTATATATTTATTAGTGATACAGGTAGACCTTTCGTAGAGATGTACAGTGAATCCCGG
111 A V P T S K K K E T E S A I Y I F I S D T G R P F V E M Y S E I P
1001 AAATTATACACATGACTGAAGGAAGGGAGCTCGTCATTCCTCGCGGGTACGTACCTAACATCACTGTTACTTTAAAAAGTTTCCACTTGACACTTT
144 E I I H M T E G R E L V I P C R V T S P N I T V T L K K F P L D T L
1101 GATCCCTGATGAAAACGCATAATCTGGGACAGTAGAAAGGGTTCATCATATCAAATGCAACGTACAAAAGAAATAGGGCTTCTGACCTGTGAAGCAACA
177 I P D G K R I I W D S R K G F I I S N A T Y K E I G L L T C E A T
1201 GTCATGGGCATTTGTATAAGACAACTATCTCACACATCGACAAACCAATACATATAGATGTCAAATAAGCACACCACGCCAGTCAAATTTACTTA
211 V N G H L Y K T N Y L T H R Q T N T I I D V Q I S T P R P V K L L
1301 GAGGCCATACTTGTCTCAATTGTACTGCTACCCTCCCTTGAACACGAGAGTTCAAATGACCTGGAGTTACCCTGATGAAAAAATAAGAGACTTC
244 R G H T L V L N C T A T T P L N T R V Q M T W S Y P D E K N K R A S
1401 CGTAAGGCGACGAATTGACCAAAGCAATCCCATGCCAACATATTCTACAGTGTCTTACTATTGACAAAATGCAGAACAAGACAAAGACTTTATACT
277 V R R R I D Q S N S H A N I F Y S V L T I D K M Q N K D K G L Y T
1501 TGTCGTGAAGGAGTGGACCATCATTCAAATCTGTTAACACCTCAGTGCATATATATGATAAAGCATTCACTGTGAAACATCGAAAACAGCAGGTGC
311 C R V R S G P S F K S V N T S V H I Y D K A F I T V K H R K Q V

BstEII (1687)
1601 TTGAAACCGTAGCTGGCAAGCGGTCTTACCGGCTCTATGAAAGTGAAGGCATTTCCCTCGCCGGAAGTTGTATGGTTAAAAGTGGTTACCTGCGAC
344 L E T V A G K R S Y R L S M K V K A F P S P E V V W L K D G L P A T
1701 TGAGAAATCTGCTCGCTATTTGACTCGTGGCTACTCGTTAATTATCAAGGACGTAAGTGAAGGATGACGAGGAAATTAACAATCTTGTGAGCATAAAA
377 E K S A R Y L T R G Y S L I I K D V T E E D A G N Y T I L L S I K
1801 CAGTCAAATGTGTTTAAAAACCTCACTGCCACTCTAATTGTCAATGTGAAACCCAGATTTACGAAAAGCCGTGTCATCGTTTCCAGACCCGGCTCTCT
411 Q S N V F K N L T A T L I V N V K P Q I Y E K A V S S F P D P A L

NdeI (1936)
1901 ACCCACTGGGCGAGACAAAATCCTGACTGTACCGCATATGGTATCCCTCAACCTACAATCAAGTGGTCTGGCACCCTGTAAACCATAATCATTCCGA
444 Y P L G S R Q I L T C T A Y G I P Q P T I K W F W H P C N H N H S E
2001 AGCAAGGTGTGACTTTTGTCCAATAATGAAGAGTCTTTATCCTGGATGCTGACAGCAACATGGGAAACAGAATTGAGAGCATCACTCAGCGCATGGCA
477 A R C D F C S N N E E S F I L D A D S N M G N R I E S I T Q R M A

NheI (2124) **XbaI (2148)**
2101 ATAATAGAAGGAAAGAATAAGATGGCTAGCACCTTGGTTGGCTGACTCTAGAATTTCTGGAATCTACATTTGCATAGCTTCCAATAAAGTTGGGACTG
511 I I E G K N K M A S T L V V A D S R I S G I Y I C I A S N K V G T

HindIII (2213)
2201 TGGGAAGAAACATAAGCTTTTATATCACAGATGTGCCAAATGGGTTTCATGTTAACTTGGAAAAATGCCGACGGAAGGAGAGGACCTGAAACTGTCTTG
544 V G R N I S F Y I T D V P N G F H V N L E K M P T E G E D L K L S C

MscI (2395)
2301 CACAGTTAAACAAGTCTTATACAGAGACGTTACTTGGATTTTACTGCGGACAGTTAATAACAGAAACAATGCACACAGTATTAGCAAGCAAAAAATGGCC
577 T V N K F L Y R D V T W I L L R T V N N R T M H Y S I S K Q K M A

BspHI (2437) **Bst1107I (2490)**
2401 ATCACTAAGGAGCACTCCATCACTCTTAATCTTACCATCATGAATGTTCCCTGCAAGATTACGGCACCTATGCTGACAGCCAGGAATGTATACACAG
611 I T K E H S I T L N L T I M N V S L Q D S G T Y A C R A R N V Y T

MscI (2584)
2501 GGGAAAGAAATCCTCCAGAAGAAAGAAATTACAATCAGAGATCAGGAAGCACCATACCTCTGCGAAACCTCAGTGTATACACAGTGGCCATCAGCAGTTC
644 G E E I L Q K K E I T I R D Q E A P Y L L R N L S D H C T V A I S S S
2601 CACCCTTTAGACTGTGCTAATGGTGTCCCGAGCCTCAGATCCTTGGTTTAAAAACAACCACAAAATAACAACAAGAGCCTGGAATTTTATAGGA
677 T T L D C H A N G V P E P Q I T W F K N N H K I Q Q E P G I I L G

DraIII (2577)
2701 CCAGGAAGCAGCACGCTGTTTATTGAAAGAGTACAGAAGAGGATGAAGGTGTCTATCACTGCAAAGCCACCAACCAAGAGGGCTGTGTAGAATTGCG
711 P G S S T L F I E R V T E E D E G V Y H C K A T N Q K G S V •

NheI (2798) **EcoRI (2792)**

2801 TAGCTCGACATGATAAGATACATTGATGAGTTGGACAAACCACAAC TAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTT

2901 TATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACCAAGTTAACAAACAACATTGCATTCATTTTATGTTTCAGGTT

3001 CAGGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGG AATTCTAAAATACAGCATAGCAAACCTTTAACCTCCAATCA

3101 AGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAG GGGCTGTTGCCAATGTGCATTAGCTGTTTGAGCCTCACCTTCTTTCATG

3201 GAGTTTAAGATATAGTGATTTTTCCAAGGTTTGAAGTCTCTTCATTCTTTATGTTTAAATGCACTGACCTCCACATTCCTTTTATAGTAAAATA

3301 TTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGT

3401 AGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTGAGGGGGATGAGTTCC

3501 TCAATGGTGGTTTTGACCAGCTTGCATTTCATCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGA

129 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 M G C P S V

3601 CCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCAATGGC

96 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 V A S G I A

3701 AATGGCTTCAGCACAGACAGTGACCTGCCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCGACATGG

63 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 A A G V H

3801 TGCTTGTCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTTCATGGTGGCCCTCC

29 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 K M

3901 TATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAA AACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACATAAC

4001 GAGCTCTGCTTATATAGACCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCCTGTTGATTTAC

4101 TAGTCAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGC

4201 ATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCCATAAGGTCATGTAAGTGGCATAATGCCAGGCGGGCCATTTAC

4301 CGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGTACTGCAAGTGGGCGAGTTTACCCTAAATACTCCACCCATTGACGTCAATG

4401 GAAAGTCCCTATTGGCGTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGCTGTTGGGCGTCCAGCCAGGCGGGCCATTTACCGTAAGT

4501 TATGTAACGCTGCAGGTTAA TTAAGAACATGTGAGCAAAAAGGCCAGCAAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCT

4601 CCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCC

4701 CTCGTGCGCTCTCCTGTTCCGACCTGCCGCTTACCGGATACCTGTCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCAGCTGTAGGT

4801 ATCTCAGTTCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGCACGAACCCCCGTTCCAGCCGACCGCTGCGCTTATCCGGTAACTATCGTCTTGA

4901 GTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGAGTTCTTGAAG

5001 TGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCG

5101 GCAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTAC

5201 GGGGCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTAT

5301 TTTCAATACATCTGTGTGTTGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGT

5401 CCCAGTGCAAGTGCAAGTGCCAGAACATTTCTCTATCGAA