



PvuI (7)
SgfI (6)
1 GGATCTGCATCGCTCCGGTGCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA

101 GAGAAAGTGGCGCGGGTAAACTGGAAAAGTATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **Bsu36I (291)**
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTCACGCGCCCGCCCTACCTGAGGCC

301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCTGTGGTGCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGCTCAACTCTACGCTTTTGTTCGTTT

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCATCATGACCATGGTTGACACAGAGATGCCATTCTGGCCAC
1▶ M T M V D T E M P F W P T
EcoRV (658)

601 CAACTTTGGGATCAGCTCCGTGGATCTCTCCGTAATGGAAGACCCTCCACTCCTTTGATATCAAGCCCTTCACTACTGTTGACTTCTCCAGCATTCT
13▶ N F G I S S V D L S V M E D H S H S F D I K P F T T V D F S S I S
701 ACTCCACATTACGAAGACATTCCATTACAAGAACAGATCCAGTGGTTGCAGATTACAAGTATGACCTGAAACTTCAAGAGTACCAAAGTGAATCAAAG
47▶ T P H Y E D I P F T R T D P V V A D Y K Y D L K L Q E Y Q S A I K
SapI (859) **XcmI (869)**

801 TGGAGCCTGCATCTCCACCTTATTATTCTGAGAAGACTCAGCTCTACAATAAGCCTCATGAAGAGCCTTCAACTCCCTCATGGCAATTGAATGTCGTGT
80▶ V E P A S P P Y Y S E K T Q L Y N K P H E E P S N S L M A I E C R V
BspEI (965)

901 CTGTGGAGATAAAGCTTCTGGATTTCACTATGGAGTTCATGCTTGTGAAGGATGCAAGGGTTTCTCCGGAGAACAATCAGATTGAAGCTTATCTATGAC
113▶ C G D K A S G F H Y G V H A C E G C K G F F R R T I R L K L I Y D

1001 AGATGTGATCTTAACTGTCGGATCCACAAAAAAGTAGAAATAAATGTCAGTACTGTCGGTTTCAGAAATGCCTTGACAGTGGGGATGTCTCATAATGCCA
147▶ R C D L N C R I H K K S R N K C Q Y C R F Q K C L A V G M S H N A
BamHI (1019) **ScaI (1049)**

1101 TCAGGTTTGGCGGGATGCCACAGCCGAGAAGGAGAAGCTGTTGGCGGAGATCTCCAGTGATATCGACCAGCTGAATCCAGAGTCCGCTGACCTCCGGCC
180▶ I R F G R M P Q A E K E K L L A E I S S D I D Q L N P E S A D L R A
1201 CCTGGCAAACATTTGTATGACTCATAATAAGTCCCTCCCGCTGACCAAAGCAAAGGCGAGGGCGATCTTGACAGGAAAGACAACAGACAAATCACC
213▶ L A K H L Y D S Y I K S F P L T K A K A R A I L T G K T T D K S P
EcoRV (1159) **Bsp120I (1196)**
EcoO109I (1196)

1301 TTCGTTATCTATGACATGAATTCCTTAATGATGGGAGAAGATAAAATCAAGTTCAAACACATCACCCCTGCAGGAGCAGAGCAAAGAGGTGGCCATCC
247▶ F V I Y D M N S L M M G E D K I K F K H I T P L Q E Q S K E V A I
1401 GCATCTTTCAGGGCTGCCAGTTTCGCTCCGTGGAGGCTGTGCAGGAGATCACAGAGTATGCCAAAAGCATTCTGGTTTTGTAATCTTGACTTGAACGA
280▶ R I F Q G C Q F R S V E A V Q E I T E Y A K S I P G F V N L D L N D
1501 CCAAGTAACTCTCCTCAAATAGGAGTCCACGAGATCATTTACACAATGCTGGCCTCCTTGATGAATAAAGATGGGGTTCTCATATCCGAGGGCCAAGG
313▶ Q V T L L K Y G V H E I I Y T M L A S L M N K D G V L I S E G Q G G
1601 TTCATGACAAGGGAGTTTCTAAAGACCTGCGAAAGCCTTTTGGTGACTTTATGAGGCCAAAGTTTGAGTTTGTGAAAGTCAATGCAGTGAATAG
347▶ F M T R E F L K S L R K P F G D F M E P K F E F A V K F N A L E L
SspI (1716)

1701 ATGACAGCGACTTGGCAATATTTATTGCTGTCATTATTCTCAGTGGAGACCGCCAGGTTTGTGAATGTGAAGCCATTGAAGACATTCAAGACAACCT
380▶ D D S D L A I F I A V I I L S G D R P G L L N V K P I E D I Q D N L
1801 GCTACAAGCCCTGGAGTCCAGCTGAAGCTGAACCACCTGAGTCTCACAGCTGTTTCCAAAGCTGCTCCAGAAAATGACAGACCTCAGACAGATTGTC
413▶ L Q A L E L Q L K L N H P E S S Q L F A K L L Q K M T D L R Q I V
BstAPI (1911)

1901 ACGGAACACGTGCAGCTACTGCAGGTGATCAAGAAGACGGAGACAGACATGAGTCTTACCCGCTCCTGCAGGAGATCTACAAGGACTTGTACTAGCAGA
447▶ T E H V Q L L Q V I K K T E T D M S L H P L L Q E I Y K D L Y •
MscI (2021)

2001 GAGTCCTGAGCCACTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTG

HpaI (2153)
2101 AAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTCATTCTTTATGTTTCAGGTTTCAGGGGA

EcoRI (2249)
2201 GGTGTGGGAGTTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATTCTAAATAACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTA

2301 CTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGCTGTTGCCAATGTGATTAGCTGTTGAGCCTCACCTCTTTTCATGGAGTTAA

2401 **SapI (2431)** **SspI (2488)**
GATATAGTGTATTTTCCAAGGTTTGAAGTCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCCACATTCCTTTTTAGTAAAATATTCAGAAA

2501 **Swal (2502)** **EcoO109I (2563)**
TAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGAC

2601 **BstXI (2792)**
TTAGGGAACAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGT
141 • N R T Y K L P I L E E I T

2701 **StuI (2927)**
GGTTTTGACCAGCTTGCCATTCACTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCCTG
127 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 V R
2801 ATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTT
93 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 I A E

2901 **StuI (2927)**
CAGCACAGACAGTGACCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTGTT
60 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 H K N
3001 GTCCTCATAGAGCATGGTGTCTTCTCAGTGGCAGCTCCACCAGTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCTATAGTGA
27 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

3101 **AseI (3135)**
GTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCATAAACGAGCTCTG

3201 **SpeI (3290)**
CTTATATAGACCTCCCACGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAA
3301 ACAAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCAT

3401 **SnaBI (3418)**
GGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCATAAAGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTG

3501 **NdeI (3523)**
ACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCC
3601 CTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAAGTTATGTAAC

3701 **PacI (3709)** **BspLU11I (3719)**
GCCTGCAGGTTAATAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGGTGGCGTTTTTCCATAGGCTCCGCCCCC
3801 CTGACGAGCATCAGAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGGC
3901 CTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGT

4001 **ApaLI (4033)**
TCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACC
4101 CGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCC
4201 TAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTATCCGGCAAACAA
4301 ACCACCGCTGGTAGCGGTGTTTTTTTTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTG

4401 **EagI (4469)** **NotI (4468)**
PacI (4449) **Swal (4458)**
ACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAAATATCTTTATTTTCATTA
4501 CATCTGTGTGTTGTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCGAGTG
4601 CAAGTGCAGGTGCCAGAACATTTCTCTATCGAA