



PvuI (7)
SgfI (6) 1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA MfeI (82)

101 GAGAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTACGCGCCCGCCGCTACCTGAGGCC

301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCTGTGGTGCCTCCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441) **NaeI (441)**
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGCTTTTGTTCGTTT

BstEII (555)
501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTACCATTGGGCAGCAACAAGAGCAAGCCCAAGGACGCCAGCCA AgeI (552) **NcoI (560)** 1 M G S N K S K P K D A S Q

601 GCGCGCCGACGCTGGAGCCCTCGAAAACTGCACGGGACAGGGGCGCCTTCCCGCCTCACAGACACCGAGCAAGCCCGCTCCGCCGACGGCCAC SacII (699)
13 R R R S L E P S E N V H G A G G A F P A S Q T P S K P A S A D G H

Bsp120I (703) **EagI (731)** **Tth11I (769)**
701 CGCGGGCCAGCGCCCTTCTGCGCCGCCGCGCCGAGCCCAAGCTCTTCGAGGCTTCAACTCCTCGGACACCGTCACTCCCGCAGAGGGCGGGGC
47 R G P S A A F V P P A A E P K L F G G F N S S D T V T S P Q R A G

BstXI (818) **BstEII (813)**
801 CTCTGGCAGGTGGGGTGACCACCTTTGTGGCCCTCTATGACTATGAGTACCGGACAGAGACTGACCTGTCTTCAAGAAAGGGAGCGGCTGCAGATTGT
80 P L A G G V T T F V A L Y D Y E S R T E T D L S F K K G E R L Q I V

AgeI (952) **XcmI (965)**
901 CAATAACACAGAGGGAGACTGGTGGCTGGCACACTCGTGAGCACGGGACAGACCGGTTACATCCCCAGCAACTATGTGGCGCCCTCCGACTCCATCCAG
113 N N T T E G D W W L A H S L S T G Q T G Y I P S N Y V A P S D S I Q
1001 GCTGAGGAGTGTACTTTGGCAAGTACTAGACGGGAATCAGAGCGGCTGCTCAACGCCGAGAACCCGAGAGGGACCTTCTCGTGAGGGAGAGTG
147 A E E W Y F G K I T R R E S E R L L L N A E N P R G T F L V R E S
1101 AGACCACAAAAGGTGCTACTGCCTCTGTATCCGACTTCGACAATGCCAAGGGCCTAAATGTGAAACTACAAGTCCGCAAGCTGGACAGCGGGCGG
180 E T T K G A Y C L S V S D F D N A K G L N V K H Y K I R K L D S G G
1201 TTTCTACATCACCTCCCGCACCCAGTTCACAGCCTGCAGCAGCTCGTGGCTTACTACTCAAACATGCTGATGGCCTGTGCACCGCCTCACTACCGTA
213 F Y I T S R T Q F N S L Q Q L V A Y Y S K H A D G L C H R L T T V

MscI (1331) **XmaI (1355)**
1301 TGTCACATCCAAGCCTCAGACCCAGGATTGGCCAAGGATGCTGGGAGATCCCCGGGAGTCCCTGCGGTGGAGGTCAAGCTGGGCCAGGGTTGCT
247 C P T S K P Q T Q G L A K D A W E I P R E S L R L E V K L G Q G C
1401 TCGGAGAGGTGTGGATGGGACCTGGAACGGCACCACGAGGGTTGCCATCAAACCTCTGAAGCCAGGCACCATGTCCCGAGGGCCTTCTGCAGGAGGC
280 F G E V W M G T W N G T T R V A I K T L K P G T M S P E A F L Q E A

BspHI (1505)
1501 CCAAGTCATGAAGAACTGAGGCACGAGAACTGGTGCAGCTGTATGCTGTGGTGTGCGGAAGAACCCATTACATTGTGACAGAGTACATGAACAAGGGG
313 Q V M K K L R H E K L V Q L Y A V V S E E P I Y I V T E Y M N K G

SspI (1634) **BspLU11I (1661)**
1601 AGTCTGCTGGACTTTCTCAAGGGGAAACGGGCAAAATTTGCGGCTACCCAGCTGGTGGACATGTCTGCTCAGATCGCTTACGGCATGGCCTATGTGG
347 S L L D F L K G E T G K Y L R L P Q L V D M S A Q I A S G M A Y V
1701 AGCGGATGAACATGTGACCCGGGACCTTCGAGCCGCAATATCTAGTAGGGGAGAACCTGGTGTGCAAAGTGGCCGACTTTGGGTTGGCCGGCTCAT
380 E R M N Y V H R D L R A A N I L V G E N L V C K V A D F G L A R L I
1801 AGAAGACAACGAATACACAGCCCGCAAGGTGCCAAATCCCCATCAAGTGGACCGCCCTGAAGCTGCTGTACGGCAGGTTACCATCAAGTCGGAT
413 E D N E Y T A R Q G A K F P I K W T A P E A A L Y G R F T I K S D
1901 GTGTGGTCTTTGGGATTCTGCTGACCGAGCTCACCACAAAGGAAGAGTGCCTATCTGGGATGGTGAACCGTGAGGTTCTGGACCAGGTGGAGCGGG
447 V W S F G I L L T E L T T K G R V P Y P G M V N R E V L D Q V E R
2001 GCTACCGGATGCCTTGTCCCGGAGTGCCCGGAGTCCCTGCATGACCTTATGTGCCAGTGTGGCGGAAGGAGCCCGAGGAGCGGCCACCTTCGAGTA
480 G Y R M P C P P E C P E S L H D L M C Q C W R K E P E R P T F E Y

XmaI (2152) **FspI (2178)**
2101 CCTGCAGGCTTCTGGAAGACTACTTTACGTCCACTGAGCCACAGTACCAGCCCGGGGAGAACCTATAGGGACTGTGTGCGCAGAAGTGCACCTCTAG
513 L Q A F L E D Y F T S T E P Q Y Q P G E N L •

MscI (2212) **NheI (2206)**
2201 GCTCCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAACCACAAGTGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTG

HpaI (2344) **MfeI (2355)**
2301 ATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTGCATTCATTTATGTTTCAGGTTACGGGGAGGTGTGGGA

EcoRI (2440)
2401 GGTTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAAATCC

2501 TTTCTGAGGGATGAATAAGCATAGGCATCAGGGCTTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTCATGGAGTTTAAAGATATAGT

2601 TATTTTCCAAGTTTGAAGTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCCACATTCCTTTTTAGTAAAATATTCAGAAATAATTTAAA SspI (2679) SwaI (2693)
 2701 TACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAAC
 2801 AAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGAC
 141 • N R T Y K L P I L E E I T T K V
 2901 CAGCTTGCCATTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGATCTG BstXI (2983)
 124 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 I S R
 3001 TCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGA
 90 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 A C V
 3101 CAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTGTGCTCATA
 57 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 D E Y
BspHI (3268)
 3201 GAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTCCTATAGTGAGTCGTATTA XmnI (3260)
 24 L M T I K E T A V E V L E L D Q Q S I N F T K M
AseI (3326)
 3301 TACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTATCTGACGGTTCACTAAACGAGCTCTGCTTATATA
SpeI (3481)
 3400 GACCTCCCACCGTACACGCCCTACGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAAACAACT
 3499 CCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATA
SnaBI (3609)
 3599 GCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAGGTCATGTACTGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAA
NdeI (3714)
 3699 TAGGGGGCTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGG
 3799 CGTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGCTGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGC
PacI (3900) BspLU11I (3910)
 3898 AGGTTAA TTAAGAACATGTGAGCAAAAGCCAGCAAAAGCCAGGAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGAC
 3997 GAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGCGTTTTCCCTGGAAGCTCCCTCGTGCCTCTC
 4097 CTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTTCTCCCTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGT
 4197 GTAGGTGCTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTGAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTA
 4297 AGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCTAACT
 4397 ACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCAC
 4497 CGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTCTACGGGTCTGACGCT
EagI (4660)
 4597 CAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCT PacI (4640) SwaI (4649) NotI (4659)
 4697 GTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCAGTGCAAGT
 4797 GCAGGTGCCAGAACATTTCTCTATCGAA