



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

101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTACGCGCCCGCCCTACCTGAGGCC HindIII (245) Bsu36I (291)

301 GCCATCCACGCGGGTTGAGTCGCGTTTCTGCCGCCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCCGTCTAGGTAAGTTAAAGCTCAGGTCGAGACC

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGTCTTTGTTTCGTTT NgoMIV (441)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCCTACCTGAGATCACCGTCATCATGAGTGGCCTGGGCCGAGCAGGCGAGGTGGCCGGAG AgeI (552) BspHI (560)

1 M S G L G R S R R G G R S

Eco47III (617) 601 CCGTGTGGACCAGGAGCGCTTCCACAGGGCCTGTGGACAGGGGTGGCTATGAGATCCTGCCCGAAGAGCAGTACTGGGATCCTCTGCTGGGTACC XcmI (625) SapI (667) ScaI (674) BamHI (681) Acc65I (694)

13 R V D Q E E R F P Q G L W T G V A M R S C P E E Q Y W D P L L G T

BstAPI (701) 701 TGCATGTCCTGCAAAACCATTTGCAACCATCAGAGCCAGCGCACCTGTGCAGCCTTCTGCAGGTCACTCAGCTGCCGCAAGGAGCAAGGCAAGTTCTATG

47 C M S C K T I C N H Q S Q R T C A A F C R S L S C R K E Q G K F Y

Bsu36I (807) 801 ACCATCTCCTGAGGGACTGCATCAGCTGTGCCTCCATCTGTGGACAGCACCTAAGCAATGTGCATACTTCTGTGAGAACAAGCTCAGGAGCCCAGTGAA

80 D H L L R D C I S C A S I C G Q H P K Q C A Y F C E N K L R S P V N

Acc65I (965) 901 CCTCCACCAGAGCTCAGGAGACAGCGAGTGGAGAAGTTGAAAAAATTGACAACTCGGGAAGGTACCAAGGATTGGAGCACAGAGGCTCAGAAGCA

113 L P P E L R R Q R S G E V E N N S D N S G R Y Q G L E H R G S E A

XmaI (1011) 1001 AGTCCAGCTCTCCCGGGGCTGAAGCTGAGTGCAGATCAGGTGGCCCTGGTCTACAGCACGCTGGGGCTCTGCCTGTGTGCCGTCCTCTGCTGCTTCTCGG

147 S P A L P G L K L S A D Q V A L V Y S T L G L C L C A V L C C F L

BamHI (1131) 1101 TGGCGGTGGCCTGCTTCTCAAGAAGAGGGGGATCCCTGCTCCTGCCAGCCCCGCTCAAGGCCCGTCAAAGTCCGGCAAGTCTTCCAGGATCACGC

180 V A V A C F L K K R G D P C S C Q P R S R P R Q S P A K S S Q D H A

BsrBI (1152) 1201 GATGGAAGCCGGCAGCCCTGTGAGCACATCCCCGAGCCAGTGGAGACCTGCAGCTTCTGCTTCCCTGAGTGCAGGGCGCCACGAGGAGAGCGCAGTC

213 M E A G S P V S T S P E P V E T C S F C F P E C R A P T Q E S A V

BbsI (1182) 1301 ACGCCTGGGACCCCGACCCCACTTGTGCTGGAAGTGGGGGTGCCACACCAGGACCACAGTCTGCAGCCTTGCCACACATCCCAGACAGCGGCCTTG

247 T P G T P D P T C A G R W G C H T R T T V L Q P C P H I P D S G L

PshAI (1353) 1401 GCATTGTGTGTGCTGCCAGGAGGGGGGCCAGGTGCATAAATGGGGTTCAGGGAGGAAAGGAGGAGAGAGATGGAGAGGAGGGGAGAGAGA

280 G I V C V P A Q E G G P G A •

MscI (1507) 1501 AGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCT

HpaI (1639) 1601 ATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTGCATTCTTTTATGTTTCAGGTTACAGGGGAGGTGTGGAGGTTT MfeI (1650)

EcoRI (1735) 1701 TTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTTACTTGAATCCTTTTC

1801 TGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAAGATATAGTGTATTT

1901 TCCCAAGTTTGAAGTAGCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATGATAAATATTCAGAAATAATTTAAATACAT SapI (1917) SspI (1974) SmaI (1988)

2001 CATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGG

2101 AACCTTTAATAGAAATTTGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTTCTCAATGGTGGTTTTGACCAGCT

1+1 • N R T Y K L P I L E E I T T K V L K

BstXI (2278) 2201 TGCCATTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCAC

122 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 D V

2301 CTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTG

89 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 T

StuI (2413) 2401 ACCCTGCCAATGTAGGCCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTCTTGTCTCATAGAGCA

55 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 L M

2501 TGGTGATCTTCTCAGTGGCGACCTCCACCAGTCCAGATCCTGCTGAGAGATGTTGAAGGCTTCATGGTGGCCCTCCTATAGTGAGTCGTATTATACTA
22 T I K E T A V E V L E L D Q Q S I N F T K M
2601 TGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACATAAACGAGCTCTGCTTATATAGACCTC
2701 CCACCGTACACGCCTACCGCCATTTGCGTCAATGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCCTTGATTTACTAGTCAAAACAAACTCCCATTG
2801 ACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGA
2901 CTAATACGTAGATGACTGCCAAGTAGGAAAGTCCATAAGGTCACTGACTGGGCATAATGCCAGGGGGCCATTTACCGTCATTGACGTCAATAGGGGG
3001 CGTACTTGGCATATGATACACTTGATGACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACT
3101 ATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAAT
3201 TAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAC
3301 AAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGA
3401 CCCTGCCGCTTACCGGATACCTGTCGCTTTTCCCTTCGGGAAGCGTGGCGTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGT
3501 TCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTAGCCCGACCGCTGCGCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGAC
3601 TTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACA
3701 CTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAG
3801 CGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAAC
3901 GAAAACCTACGTTAAGGGATTTTGGTCAATGGCTAGTTAATTAACATTTAAATCAGCGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGG
4001 TTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAAACTAGCAAAATAGGCTGTCCCAGTGCAGGTGCC
4101 AGAACATTTCTCTATCGAA