



PvuI (7)
SgfI (6) 1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
MfeI (82) EcoNI (96)

101 GAGAAGTGGCGCGGGTAAACTGGAAAGTGATGCTGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACAGCGCCCGCCCTACCTGAGGCC
EcoNI (287)

301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

SphI (560)
501 TCTGTTCTGCGCGGTTACAGATCCAAGCTGTGACCGCGGCTACCTGAGATCACCGGTCAGCATGCTCCTCTGCTGTTGCCTGCTGCTGGCCGAGT
AgeI (552) 1▶ M L L L L L P L L L A A V

Tth111I (619) **XcmI (638)**
601 GCTGACAAGAACCAAGCTGACCTGTCCCGAGGCCACAGGCTCCAGTGGAAAGCAAGGATTGCCACATTGCTCAGTTCAAGTCTCTGTCCCAAAA
13▶ L T R T Q A D P V P R A T R L P V E A K D C H I A Q F K S L S P K

Bsu36I (759)
701 GAGCTGCAGGCCTTCAAAAAGGCCAAGGATGCCATCGAGAAGAGGCTGCTTGAGAAGGACCTGAGGTGCAGTTCCACCTCTTCCCGAGGCCTGGGACC
47▶ E L Q A F K K A K D A I E K R L L E K D L R C S S H L F P R A W D

BstXI (896)
801 TGAAGCAGCTGCAGGTCCAAGAGCGCCCAAGGCTTGCAGGCTGAGGTGGCCCTGACCTGAAGGTCTGGGAGAACATGACTGACTCAGCCCTGGCCAC
80▶ L K Q L Q V Q E R P K A L Q A E V A L T L K V W E N M T D S A L A T

BsrGI (955)
901 CATCTGGGCCAGCCTTTCATACACTGAGCCACATTCCTCCAGCTGCAGACCTGTACACAGCTTCAGGCCACAGCAGAGCCAGGTCCCGAGCCGC
113▶ I L G Q P L H T L S H I H S Q L Q T C T Q L Q A T A E P R S P S R

1001 CGCCTCTCCGCTGGCTGCACAGGCTCCAGGAGGCCAGAGCAAGGAGACCCCTGGCTGCCTGGAGGCCTCTGCACCTCCAACCTGTTTCGCTGCTCA
147▶ R L S R W L H R L Q E A Q S K E T P G C L E A S V T S N L F R L L

XmaI (1100) **NheI (1144)**
1101 CCCGGACCTCAAGTGTGTGGCCAAATGGAGACCAAGTGTGTCTGAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGT
180▶ T R D L K C V A N G D Q C V •

HpaI (1282) MfeI (1293)
1201 AATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAAACAATTC

EcoRI (1378)
1301 ATTCATTTATGTTTCAGGTTCCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTCTAAAATACAGCATAGC
1401 AAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTT

SapI (1560)
1501 GCAGCCTCACCTTTTCATGGAGTTTAAAGATATAGTGTATTTCCCAAGGTTTGAAGTCTTTCATTCTTTATGTTTTAAATGCACTGACCTCCCA

SspI (1617) **SwaI (1631)**
1601 CATTCCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTT
1701 CATAATATCCCCAGTTTGTAGTGTGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTG
141▶ • N R T

SacI (1892)
1801 TACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTC
136▶ Y K L P I L E 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

BstXI (1921)
1901 TGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTT
103▶ C M G C P S V 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

2001 GCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTGGTC
70▶ S V A S G I A 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

XmnI (2198)
2101 CTGATGGCCGCCGACATGGTGTCTTGTCTCCTCATAGAGCATGGTGTCTTCTCAGTGGGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGA
36▶ R I A A G V H 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

BbsI (2202) **AseI (2264)**
2201 AGGTCTTCATGGTGGCCCTCTATAGTGTGCTATTATACTATGCGGATATACTATGCGGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGC
3▶ T K M

SacI (2321)
2301 TTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTCGCTCAATGGGGCGGAGTTGTTACGACATTT

SpeI (2419)
2401 TGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCCACGCCCA

SnaBI (2547)
2501 TTGATGACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCCATAAAGTGCATGACTGGGCAT

2601 AATGCCAGGCGGGCCATTACCCTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACCTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATA
2701 CTCCACCCATTGACGTCAATGAAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCA

2801 GCGGGCCATTACCCTAAGTTATGTAACGCTGCAGGTTAATTAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGCCGCGTT
2901 GCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAG
3001 GCGTTTTCCCTGGAAAGCTCCCTCGTGCCTCTCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTT

3101 CTCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGCCGACCGCTGCGCCTT
3201 ATCCGGTAACTATCGTCTTGAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGC
3301 GGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAA
3401 GAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGA

3501 AGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCG
3601 GCGCAATAAAAATATCTTTATTTTATTACATCTGTGTGGTTTTTTTTGTGTGAATCGTAACATAACGCTCTCCATCAAAAACAAAACGAAACAAAA
3701 CAAACTAGCAAAATAGGCTGTCCCAGTCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA