



PvuI (7)
SgfI (6) **MfeI (82)**
1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAAGTGGCGCGGGTAAACTGGAAAAGTGTGCTGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) **PvuII (239)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACGCGCCGCCCTACCTGAGGCC
301 GCCATCCACGCCGTTGAGTCGCGTTCTGCCGCTCCCGCTGTGGTGCCTCCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTCCTGACCTGCTTGTCAACTCTACGCTTTTGTTCGTTT

SphI (568)
AgeI (552) **XcmI (565)**
501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTAGGAGGGCCAGCATGCGGCTGGGAGTCTGGACTGCTCTTC
1▶ M R L G S P G L L F
PvuII (674)

601 CTGCTCTTCAGCAGCCTTCGAGCTGATACTCAGGAGAAGGAAGTCAGAGCGATGGTAGGCAGCGACGTGGAGCTCAGCTGCGCTTGCCTGAAGGAAGCC
11▶ L L F S S L R A D T Q E K E V R A M V G S D V E L S C A C P E G S
SnaBI (720) **BstEII (755)**
701 GTTTTGATTTAAATGATGTTTACGTATATTGGCAAACAGTGAAGTCAAAAACCTGGTACCTACCACATCCACAGAACAGCTCCTTGAAAAAGTGGAA
44▶ R F D L N D V Y V Y W Q T S E S K T V V T Y H I P Q N S S L E N V D

SphI (838)
NgoMIV (834)
EagI (832)
801 CAGCCGCTACCGGAACCGAGCCCTGATGTCACCGCCGGCATGCTGCGGGGCGACTTCTCCCTGCGCTTGTCAACGTACCCCCAGGACGAGCAGAAG
77▶ S R Y R N R A L M S P A G M L R G D F S L R L F N V T P Q D E Q K
901 TTTCACTGCTGGTGTGAGCAATCCCTGGGATTCCAGGAGTTTGGAGCTTGGAGTTACTGATGTGGCAGCAAACCTCAGCGTGCCGCTGCTCA
111▶ F H C L V L S Q S L G F Q E V L S V E V T L H V A A N F S V P V V

BsrGI (1041)
BbrPI (1037)
1001 GCGCCCCCAGAGCCCTCCAGGATGAGCTCACCTTACGTGATCCATAAACGGCTACCCAGGCCAACGTGTACTGGATCAATAAGACGGACAA
144▶ S A P H S P S Q D E L T F T C T S I N G Y P R P N V Y W I N K T D N

BbsI (1134)
1101 CAGCCTGCTGGACCAGGCTCTGCAGAATGACACCGTCTTCTTGAACATGCGGGGCTGTATGACGTGGTCAGCGTCTGAGGATCGCACGGACCCCCAGC
177▶ S L L D Q A L Q N D T V F L N M R G L Y D V V S V L R I A R T P S
1201 GTGAACATTGGCTGCTGCATAGAGAACGTCTTCTGCAGCAGAACCTGACTGTCCGACGCCAGACAGGAAATGACATCGGAGAGAGACAAGATCACAG
211▶ V N I G C C I E N V L L Q Q N L T V G S Q T G N D I G E R D K I T

BbrPI (1334)
1301 AGAATCCAGTCACTACCGGCGAGAAAAACCGGCCACGTGGAGCATCTGGCTGTCCCTGTGCCTGCTTGTGGTCTGGCGGTGGCCATAGGCTGGGTGTG
244▶ E N P V S T G E K N A A T W S I L A V L C L L V V V A V A I G W V C

BspEI (1448)
1401 CAGGGACCGATGCTCCAACACAGCTATGCAGGTGCCTGGGCTGTGAGTCCGGAGACAGAGCTCACTGGCCACGTTTGACCGGAGCTACCGCCAGAGC
277▶ R D R C L Q H S Y A G A W A V S P E T E L T G H V •

NheI (1515)
1501 GTGGACAGGGCTTCCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTG

HpaI (1653) **MfeI (1664)**
1601 AAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCATTTTATGTTTCAGGTTCAAGGGGA

EcoRI (1749)
1701 GGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGGTATGGAATCTAAAATACAGCATAGCAAACTTAACTCCAATCAAGCCTCTA
1801 CTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTTCATGGAGTTAA

SspI (1988)
1901 GATATAGTGTATTTTCCAAGGTTTGAAGTACTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAAATATTCAGAAA

EcoO109I (2063)
2001 TAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGAC
2101 TTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGT
141▶ • N R T Y K L P I L E E I T

BstXI (2292)
2201 GGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCATGCCACAGGGGCTGACCACCCTG
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

2301 ATGGATCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCCAATGGCAATGGCTT
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
StuI (2427)

2401 CAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGCTCTGATGGCCGCCCGACATGGTGTCTTGT
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
BbsI (2573)

2501 GTCCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCTATAGTGA
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
XmnI (2569)

2601 GTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCCTAAACGAGCTCTG
AseI (2635)

2701 CTTATATAGACCTCCCACGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAA
SpeI (2790)

2801 ACAAACCTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCAT
SnaBI (2918)

2901 GGTAAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAAGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTG
NdeI (3023)

3001 ACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCC
3101 CTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGCGGGGGTCTGTTGGCGGTGAGCCAGCGGGCCATTTACCGTAAAGTTATGTAAC
PacI (3209)

3201 GCCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCC
SdaI (3201) BspLU11I (3219)

3301 CTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGCGTTTTCCCTGGAAGCTCCCTCGTGGC
3401 CTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGTTTTCTCATAGCTCACGCTGTAGGTATCTCAGT
ApaLI (3533)

3501 TCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACC
3601 CGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCC
3701 TAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAA
3801 ACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTG
EagI (3969)

3901 ACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAAATATCTTTATTTTCATTA
PacI (3949) NotI (3968)

4001 CATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCGAGTG
4101 CAAGTGCAGGTGCCAGAACATTTCTCTATCGAA