



PvuI (7)
SgfI (6)
MfeI (82) **EcoNI (96)**

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACACGCGCCCGCCCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTGCAGTTCGCCCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

KasI (535)
AgeI (552) **BspHI (560)**

501 TCTGTTCTGGCGGTTACAGATCCAAGCTGTGACCGCGGCTACCTGAGATCACCGGTCATCATGACAGATCAGACCTACTGTGACCGGCTGGTACAGGA
1▶ M T D Q T Y C D R L V Q D

Tth111I (617)
PvuII (661)

601 CACTCCTTTCTGACGGGACAGGTCGCCTGAGCGAGCAACAAGTGGACAGGATCATCTCCAGCTGAACCGTTACTACCCACAGATCCTTACCAACAAG
 13▶ T P F L T G Q G R L S E Q Q V D R I I L Q L N R Y Y P Q I L T N K

BspEI (713)
BsiWI (738)

701 GAGGCTGAAAAGTTCCGGAAACCCCAAGGCATCCCTGCGGTACGGCTCTGTGACCTCCTGAGCCTACACAGCAGCGTGGGAACGGCACTGTGAGGAAT
 47▶ E A E K F R N P K A S L R V R L C D L L S H L Q Q R G E R H C Q E

BsrGI (812)

801 TTTACCGAGCTCTGTACATCCATGCCAGCCCTGCACAGCCACCTGCCAGCCGCTACTCTCCTCAAACCTCAGATTGCAGAGAGCTGGACTGGGGCAT
 80▶ F Y R A L Y I H A Q P L H S H L P S R Y S P Q N S D C R E L D W G I

XcmI (929)
SandI (924)
StuI (945)

901 CGAGAGCCGTGAGCTGAGTGACAGGGGACCCATGAGCTTCTGGCAGGCTGGGCTGGCAGCGGGCCTGGCCCTCCTCTACTGTGCCCTCCAGAC
 113▶ E S R E L S D R G P M S F L A G L G L A A G L A L L L Y C C P P D
 1001 CCCAAAGTGCTGCCCGGAACCCGGCGCTCCTTGCTTCTCACCTGTATCATTGACCGGCATGTCAGCCGCTACCTGCTGGCTTTCTGGCAGATGACC
 147▶ P K V L P G T R R V L A F S P V I I D R H V S R Y L L A F L A D D

MseI (1135)
NheI (1129)

1101 TCGGAGGACTCTGATGAACCCAGATCCCGGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAAATGCAGTGA
 180▶ L G G L •

HpaI (1267) **MfeI (1278)**

1201 ATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGTGAATAAACAAGTTAAACAACAATTGCATTATTTATGTTT

EcoRI (1363)

1301 CAGGTTACAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTAAAATACAGCATAGCAAACTTTAACCTCC
 1401 AAATCAAGCCTCTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCT
 1501 TTCATGGAGTTTAAAGATATAGTGTATTTCCCAAGTTTGAAGTCTTTCATTTCTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTATGTT

SspI (1602)
SwaI (1616)
EcoO109I (1677)

1601 AAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAG
 1701 TTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGATG
141▶ • N R T Y K L P I

BstXI (1906)

1801 AGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAAGGATAGTCAAGATGAGCTCTGACATGCCACAGG
 131▶ 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 C M G C P
 1901 GGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCC
 98▶ 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 S V A S G

StuI (2041)

2001 AATGGCAATGGCTTCAAGCAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCG
 65▶ 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 R I A A G
BspHI (2191)

BbsI (2187)
XmnI (2183)

2101 ACATGGTCTTGTGTCCTCATAGAGCATGGTGTCTTCTCAGTGGGACCTCCACAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGATGG
 31▶ 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 T K M ◀

AseI (2249)

2201 CCCTCCTATAGTGAAGTCTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTATCTGACGGTTC
 2300 ACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGAGTTGTTACGACATTTTGGAAAGTCCCGTT

SpeI (2404)

2400 GATTTACTAGTCAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCC

SnaBI (2532)

2499 AAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGG

NdeI (2637)

2599 CCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCCTAAATACTCCACCCATTGA

2699 CGTCAATGGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGACCCAGGCGGGCCATTTA

PstI (2816)

SdaI (2815)Pacl (2823)

BspLU11I (2833)

2799 CCGTAAGTTATGTAACGCCTGCGAGGTTAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTT

2897 TCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCC

2997 TGGAAGCTCCCTCGTGGCTCTCCTGTTCCGACCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCA

ApaLI (3147)

3097 CGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCAGCCCGACCGCTGCGCTTATCCGGTAACT

3197 ATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGA

3297 GTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGC

3397 TCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGA

EagI (3583)

Pacl (3563) SwaI (3572)

NotI (3582)

3497 TCTTTTCTACGGGTCTGACGCTCAGTGGAAACGAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAA

3596 AATATCTTTATTTTACATTACATCTGTGTGTTGTTTTTTGTGTGAATCGTAACATAACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCA

3696 AAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTATCGAA