



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

1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACACGCCGCCGCCCTACCTGAGGCC
 301 GCCATCCACGCCGGTTGAGTGCCTGTTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTGGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

KasI (535)
BspHI (560)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCATCATGACACTGCTCGCCGTCTCCACCTTTGAGGGTGTCT
1▶ M T L L G R L H L L R V L

BbsI (613)
XcmI (654)

601 TGGCACCCCTCCTGTCTTCTCCTGGGGCTGCTGCTGGCCCTGCCTCTAGGGGCCAGGGACTCTCTGGTGTCCGCTTCTCCGCTGCCAGGACAGCCCAT
 13▶ G T P P V F L L G L L L A L P L G A Q G L S G V R F S A A R T A H

AgeI (552)
EagI (573)

701 CCACTCCCTCAGAAGCACTTGACCCATGGCATCCTGAAACCTGCTGCTCACCTTGTGGGTACCCAGCAAGCAGAAGCACTACTGCTCTGGAGAGCAAGCA
 47▶ P L P Q K H L T H G I L K P A A H L V G Y P S K Q N S L L W R A S

Acc65I (758)

801 CGGATCGTGCCTTCTCCGACATGGCTTCTTTGAGCAACAACCTCCCTCCTGATCCCCACCAAGTGGCCCTACTTTGTCTACTCCAGGTGGTTTTCTC
 80▶ T D R A F L R H G F S L S N N S L L I P T S G L Y F V Y S Q V V F S

BstXI (935)

901 TGGAGAAAGCTGCTCCCCAGGGCCATTCCCACTCCCATCTACCTGGCACACGAGGTCCAGCTCTTTTCTCCAATACCCCTTCCATGTGCCTCTCCTC
 113▶ G E S C S P R A I P T P I Y L A H E V Q L F S S Q Y P F H V P L L

FspI (1002)
PvuII (1090)

1001 AGTGGCAGAAAGTCTGTGTATCCGGGACTTCAAGGACCGTGGGTGCGCTCAATGTACCAGGGGGCTGTGTTCTGCTCAGTAAGGGAGACCAGCTGTCCA
 147▶ S A Q K S V Y P G L Q G P W V R S M Y Q G A V F L L S K G D Q L S

MscI (1181)

1101 CCCACACCGAGGCATCTCCATCTACACTTACAGCCCCAGCAGTGTATTCTTTGGAGCCTTGGCACTGTAGATTCCGTAGCTGGCCAGACATGATAAGAT
 180▶ T H T D G I S H L H F S P S S V F F G A F A L •

NheI (1175)

1201 ACATTGATGAGTTTGACAAACCACAAC TAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAG

HpaI (1313)
MfeI (1324)

1301 CTGCAATAACAAGTTAAACAACAACAATTGCATTCATTTATGTTTCAGGTTCCAGGGGAGGTGTGGAGGTTTTTAAAGCAAGTAAACCTCTACAAA

EcoRI (1409)

1401 TGTGGTATGGAATTCTAAAAATACAGCATAGCAAACTTAACTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATC
 1501 AGGGGCTGTTCCAATGTGCATTAGCTGTTGCAGCCTCACCTCTTTTCATGAGTTTAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTAGCTTTCAT

SspI (1648)
SwaI (1662)

1601 TTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAAAATGTTTTTT

EcoO109I (1723)

1701 ATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAGGAACCTTAAATAGAATTTGGACAGCAA

SacI (1923)
BstXI (1952)

1801 GAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAG
 141▶ N R T Y K L P I L E I T T K V L K G N M E I L V F

StuI (2087)

1901 CAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAG
 113▶ 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 E D S Y P H R V A

SacI (1923)
BspHI (2237)

2001 CCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTG
 80▶ V I T D F D K Q G N S V A S G I A I A E A C V T V R G I Y A E I H

XmnI (2229)
AseI (2295)

2101 GACAGCAGAGATGATCTCCCGAGTCTGGTCTGATGGCCGCCGACATGGTGTGTTGTCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCC
 47▶ 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 T I K E T A V E

BbsI (2233)

2201 ACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGATGGCCCTCTATAGTGAAGTCTATTATACTATGCCGATATACTATGCCGATGATTA
 13▶ V L E L D Q Q S I N F T K M

SacI (2352)

2301 TTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACTCCACCGTACACGCCTACCGCCATTT

2401 GCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCC GTT GATT **SpeI (2450)** ACTAGTCAAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGAAA
 2501 TCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTA
 2601 GGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGAT
 2701 GTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGT
 2801 CAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAAC **PstI (2862)** **SdaI (2861)** **PacI (2869)** **BspLU11I (2879)** GCC TGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGC
 2901 AAAAGGCCAGGAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTG
 3001 GCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCGACCCTGCCGTTACCGGATACCTGTCC
 3101 GCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACG **ApaLI (3193)**
 3201 AACCCCGGTT CAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGG
 3301 TAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGC
 3401 GCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGC
 3501 AGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGAACGAAAACCTCACGTAAAGGGATTTTGGT
 3601 **PacI (3609)** **SwaI (3618)** **EagI (3629)** **NotI (3628)** CATGGCTAGTTAATTAACATTTAAATC **AGCGGCCG**CAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACAT
 3701 ACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA