



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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAAGTGGCGGGGTAAGTGGAAAGTGATGTCGTGTAAGTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTGCAGTTCGCCCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGCTTTTGTTCGTTT

KasI (535)
BspHI (560) **BbsI (570)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTA
 601 GCTCTTCATCTTCTCATTCTTTGTCCTGAATTACTCCAACACGGGAGTACCCAGTGCCTGGTTCCCAAGCAGATGCTCCTGGAAGTCTCAGAGAAC
 13▶ L F I F L T S F V L N Y S N T G V P S A W F P K Q M L L E L S E N

▶
▶

Eco47III (779)

701 TTCCGAGGTTTCATCAAGTACACGCCGTGCACCTGCAGACACTGCATCAGCCAGGACAAGGTATCATATTGGTTCGACCAGCGCTTCAACAAGACTATGC
 47▶ F R R F I K S Q P C T C R H C I S Q D K V S Y W F D Q R F N K T M

ApaLI (726)
AfeI (779)

801 AGCCCTGCTGACAGTCCACAACGCTCTGATGGAGGAGACACATACCGGTGGTGGCTGAGGCTCCAGCGGAGAGGAAACCAACACTGAGCGACAC
 80▶ Q P L L T V H N A L M E E D T Y R W W L R L Q R E R K P N N L S D T

XmnI (907)
BamHI (936)
BstEII (997)

901 CGTCAAGGAACTGTTTCGCCTGGTGCCTGGCAATGTGGATCCTATGTTGAACAAGAGGCTGGTGGGCTGCCGACGCTGTGCAGTTGTAGGAACTCCGGT
 113▶ V K E L F R L V P G N V D P M L N K R L V G C R R C A V V G N S G
 1001 AACCTGAAGGACTCCTCGTATGGGCTGAGATCGACAGCCATGACTTTGTGCTGAGGATGAACAAGGCACCCACAGTGGGTTTTGAGGCAGACGTTGGGA
 147▶ N L K D S S Y G P E I D S H D F V L R M N K A P T V G F E A D V G
 1101 GCCGGACCACCCACATCTCGTGTATCCGAGAGCTTCCGGGAGCTGGGAGAGAATGTCAACATGGTCCCTGTTCCCTTCAAGACCACCTGACCTGCAGT
 180▶ S R T T H H L V Y P E S F R E L G E N V N M V L V P F K T T D L Q W

BsaBI (1281)

1201 GGTGATCAGCGCCACCACACAGGCACCATCACTCACACCTATGTCCCGTGCCCGGAAAGATCAAAGTGAACAAGAGAAGATCCTGATCTACCACCCA
 213▶ V I S A T T T G T I T H T Y V P V P P K I K V K Q E K I L I Y H P

NcoI (1338)

1301 GCCTTCATCAAGTATGTCTTTGACAACCTGGCTCAGGGCCATGGGCGGTATCCATCGACTGGCATCCTCTCCATCATCTTCTCCATTTCATATCTGTGATG
 247▶ A F I K Y V F D N W L Q G H G R Y P S T G I L S I I F S I H I C D
 1401 AGGTGGACTTATATGTTTTGGGCGAGACAGCAAAGAAATTGGCACCATTACTGGGAGAACAACCCATCAGCGGGTGCCTCCGAAAGACGGGGTTCA
 280▶ E V D L Y G F G A D S K G N W H H Y W E N N P S A G A F R K T G V H
 1501 CGATGGCGACTTCGAGTACAACATCACAACCTACCTGGCAGCCATCAACAAAATCCGCATCTTCAAGGGGAGATGATGCTGCGACCCATTAAGGATGGAC
 313▶ D G D F E Y N I T T T L A A I N K I R I F K G R •

MscI (1622)
NheI (1616)

1601 ACAACACATCACACCTGCTAGTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAACCACTAGAATGCAGTGAAAAAATGCTTTATTTGT

HpaI (1754) **MfeI (1765)**

1701 GAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAACAAGTTAAACAACAATTGCATTCTTTATGTTTCAGGTTTCAGGGGG

EcoRI (1850)

1801 AGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAATACAGCATAGCAAACTTAACTCCAATCAAGCCTCT
 1901 ACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTTCATGGAGTTTA

SspI (2089)

2001 AGATATAGTGTATTTTCCAAGGTTTGAAGTACTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTGTAGTAAATATTCAGAA

SwaI (2103)
EcoO109I (2164)

2101 ATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGA
 2201 CTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTTCTCAATGG
 141▶ N R T Y K L P I L E E I T

SacI (2364)
BstXI (2393)

2301 TGGTTTTGACCAGCTTGCATTTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGTGCCTCTGACATGCCACAGGGGCTGACCCCT
 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 R
 2401 GATGGATCTGTCCACCTCATCAGAGTAGGGGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCT
 94▶ 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

StuI (2528)

2501 TCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTGT
 60▶ 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 V H H K N

2601 TGTCCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCCTATAGTG
271 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 ←

BbsI (2674)
XmnI (2670)

2701 AGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACATAAACGAGCTCT
←

AseI (2736) SacI (2793)

2801 GCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGCGGAGTTGTTACGACATTTTGAAAGTCCCCTTGATTTACTAGTCAA
←

2901 AACAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCA
←

SnaBI (3019)

3001 TGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTATGTACTGGGCATAATGCCAGGGGGCCATTTACCGTCATT
←

NdeI (3124)

3101 GACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCCTAAATACTCCACCATTGACGTCAATGAAAGTC
←

3201 CCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCTGTTGGCGGTCCAGCCAGCGGGCCATTTACCCTAAGTTATGTAA
←

PacI (3310)

3301 CGCCTGCAGGTTAATTAAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGCGCGTGTGGCGTTTTCCATAGGCTCCGCCCC
←

SdaI (3302) BspLU11I (3320)

3401 CCTGACGAGCATCAGAAAATCGACGCTCAAGTCAAGTCAAGTGGCGAAACCCGACAGGACTATAAAGATACCAGCGTTTTCCCTGGAAGCTCCCTCGTGC
←

3501 GCTCTCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGTTTTCTCATAGCTCACGCTGTAGGTATCTCAG
←

ApaLI (3634)

3601 TTCGGTGTAGGTCGTTCCGCTCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAAC
←

3701 CCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCTGTTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTTCTTGAAGTGGTGGC
←

3801 CTAACACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACA
←

3901 AACCCCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCT
←

EagI (4070)

4001 GACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAAATATCTTTATTTTCATT
←

PacI (4050) SmaI (4059) NotI (4069)

4101 ACATCTGTGTGTTGGTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCAGT
4201 GCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA