



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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGACAGACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCGCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

KasI (535)
NcoI (560) **BstEII (555)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATTGGCCCTGTCCTTTTCTTACTGATGGCCGTGCTGGT
 1▶ M A L S F S L L M A V L V

XcmI (614)
EcoO109I (667)

601 GCTCAGCTACAAATCCATCTGTTCTCTGGGCTGTGATCTGCCTCAGACTCACAGCCTGGGTAATAGGAGGGCCTTGATACTCCTGGCACAATGGGAAGA
 13▶ L S Y K S I C S L G C D L P Q T H S L G N R R A L I L L A Q M G R
 701 ATCTCTCATTCTCTGCTGAAGGACAGATATGATTTCCGATTCCCGAGGAGGTGTTGATGGCAACAGTCCAGAAGGCTCAAGCCATCTCTGCCT
 47▶ I S H F S C L K D R Y D F G F P Q E V F D G N Q F Q K A I S A I S A
 801 TCCATGAGATGATCCAGCAGACCTCAATCTCTCAGCACAAAGGATTCTGCTGTTGGGATGAGACCCTCCTAGACAAATTCTACAACTTT
 80▶ F H E M I Q Q T F N L F S T K D S S A A W D E T L L D K F Y I E L F
 901 CCAGCAACTGAATGACCTAGAAGCTGTGTGACACAGGAGTTGGGGTGAAGAGATTGCCCTGATGAATGAGGACTCCATCCTGGCTGTGAGAAATAC
 113▶ Q Q L N D L E A C V T Q E V G V E E I A L M N E D S I L A V R K Y

BspHI (1073)

1001 TTTCAAAGAACTACTCTTATCTGATGGGAAGAAATACAGCCCTTGTGCTGGGAGGTTGTAGAGCAGAAATCATGAGATCCTTCTTTTTCAACAA
 147▶ F Q R I T L Y L M G K K Y S P C A W E V V R A E I M R S F S F S T

MscI (1145)

1101 ACTTGCAAAAAGGATTAAGAAGGAAGGATTGAAAACCTCAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTAAATGC
 180▶ N L Q K G L R R K D •

HpaI (1277) **MfeI (1288)**

1201 AGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGTGCATAAACAAGTTAAACAACAATTGCATTCA

EcoRI (1373)

1301 TTTTATGTTTCAGGTTCCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTCTAAAATACAGCATAGCAAAAC
 1401 TTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGC

SapI (1555)

1501 CTCACCTTCTTTCATGGAGTTTAAAGATATAGTGTATTTTCCCAAGTTTGAAGTCTTTCATTCTTTATGTTTTAAATGCACTGACCTCCCACATTC

SspI (1612) **SwaI (1626)**
EcoO109I (1687)

1601 CCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTCATAA
 1701 TATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTGATTCTGGTGTACTT
 141▶ • N R T Y K

SacI (1887)

1801 GAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTATCTCAATGAGCACAAAGCAGTCAAGGAGCATAGTCAGAGATGAGCTCTCTGCAC
 135▶ 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 C

BstXI (1916)

1901 ATGCCACAGGGGCTGACCACCCTGATGGATCTGTCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCA
 101▶ 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 S V

StuI (2051)

2001 CAGCAGACCAATGGCAATGGCTTCCAGCAGACAGTACCCTGCCAATGTAGGCCTCAATGTGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGAT
 68▶ 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 R I

BbsI (2197) **XmnI (2193)**

2101 GGCCGCCCGACATGGTCTTGTGCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTC
 35▶ 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 T

AseI (2259)

2201 TTCATGGTGGCCCTCTATAGTGAAGTCTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATC
 1▶ K M

SacI (2316)

2301 TGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAA

SpeI (2414)

2401 AGTCCCGTTGATTTACTAGTCAAACAAACTCCATTGACGTCAATGGGTGGAGACTTGAATCCCGTGAGTCAAACCGCTATCCACGCCATTGAT

2501 GTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCCATAAAGGTCATGACTGGGCATAATGC
SnaBI (2542)

2601 CAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGCCATATGATACACTTGATGACTGCCAAGTGGGCAGTTTACCGTAAATACTCCA
NdeI (2647)

2701 CCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGG

2801 GCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAAGAACATGTGAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGG
PacI (2833)
PstI (2826)
SdaI (2825)
BspLU11I (2843)

2901 CGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAGATACCAGGCGTT
←

3001 TCCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCGACCCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGAAGCGTGGCGCTTTCTCAT

3101 AGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGCCGACCGCTGCGCCTTATCCG
ApaLI (3157)

3201 GTAACATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGC

3301 TACAGAGTTCTTGAAGTGGTGGCCTAACGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGGTT

3401 GGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATC

3501 CTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGAACGAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCG
EagI (3593)
PacI (3573) **SwaI (3582)** **NotI (3592)**

3601 AATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGTTTTTTGTGTAATCGTAACATAACGCTCTCCATCAAACAAAACGAAACAAAACAAC

3701 TAGCAAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA