



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

1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGTCCGCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACACGGCCCGCCGCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

KasI (535)
AgeI (552)

501 TCTGTTTGTCCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTAGGAGGCCACCATGGAATATCATCTGATTTAGAAAATTTG
1 M E Y H P D L E N L

KasI (697)

601 GATGAAGATGGATATACTCAATTACACTTCGACTCTCAAAGCAATACCAGGATAGCTGTTGTTTCAGAGAAAGGATCGTGTGCTGCATCTCCTCCTTGGC
 11 D E D G Y T Q L H F D S Q S N T R I A V V S E K G S C A A S P P W

Acc65I (762)

701 GCCTCATTGCTGAATTTTGGGAATCCTATGCTTGGTAATACTGGTGATAGCTGTGGTCTGGTACCATGGCTATTTGGAGATCCAATTCAGGAAGCAA
 44 R L I A V I L G I L C L V I L V I A V V L G T M A I W R S N S G S N
 801 CACATTGGAGAATGGCTACTTTTATCAAGAAATAAGAGAACCACAGTCAACCCACACAATCATCTTTAGAAGACAGTGTGACTCCTACCAAAGCTGTC
 77 T L E N G Y F L S R N K E N H S Q P T Q S S L E D S V T P T K A V

SapI (953)

901 AAAACCACAGGGGTTCTTTCCAGCCTTGTCTCCTAATTGGATTATATATGAGAAGAGCTGTTATCTATTACAGCATGCTACTAAATTCCTGGGATGGAA
 111 K T T G V L S S P C P P N W I I Y E K S C Y L F S M S L N S W D G
 1001 GAAAAAGACAATGCTGGCAACTGGGCTTAATCTCTAAAGATAGACAGCTCAAATGAATTGGGATTTATAGTAAAACAAGTGTCTTCCCAACTGATAA
 144 S K R Q C W Q L G S N L L K I D S S N E L G F I V K Q V S S Q P D N

BstXI (1140)

1101 TTCATTTTGGATAGGCCTTTCTCGGCCAGACTGAGGTACCATGGCTCTGGGAGGATGGATCAACATTCTCTTCTAACTTATTTAGATCAGAACCACA
 177 S F W I G L S R P Q T E V P W L W E D G S T F S S N L F Q I R T T

XcmI (1221)
BbrPI (1239)

1201 GCTACCCAAGAAAACCCATCTCCAAATTGTGTATGGATTACGTCAGTCATTATGACCAACTGTGTAGTGTGCCCTCATATAGTATTTGTGAGAAGA
 211 A T Q E N P S P N C V W I H V S V I Y D Q L C S V P S Y S I C E K

MscI (1354)

1301 AGTTTTCAATGTAAGGGGAAGGGTGGAGAAGGAGAGAGAAATATGTGAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAA
 244 K F S M •

HpaI (1486) **MfeI (1497)**

1401 CTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAAGTTAAACAACAACAA

EcoRI (1582)

1501 TTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTAAAATACAGCA
 1601 TAGCAAACTTTAACCTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCT

SapI (1764)

1701 GTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTCCCAAGGTTTGAAGTCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCT

SspI (1821)
SwaI (1835)
EcoO109I

1801 CCCACATTCCTTTTTAGTAAAAATTCAGAAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGC
 1901 CCTTCATAATATCCCCAGTTTAGTGTGGACTTAGGGAACAAGGAACCTTAAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCT
141 • N R

SacI (2096)

2001 GGTGACTTGGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGC
 138 T Y K 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

BstXI (2125)

2101 TCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCC
 104 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 V I T D F D K Q G

StuI (2260)

2201 CGTTGCTCACAGCAGACCAATGGCAATGGCTTCCAGCACAGACAGTGACCTGCCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTT
 71 N S V 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
 2301 GGTCTGATGGCCGCCCCGACATGGTGTCTTGTCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGCTGAGAGATG
 38 T R I 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

BspHI (2410)
XmnI (2402)
AseI (2468)

2401 TTGAAGGCTTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTC
 4 N F T K M

2501 CAGC T TATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGAC
SacI (2525)

2601 ATTTTGAAAGTCCCGTTGATT**ACTAGT**CAAAACAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGTATCCAC
SpeI (2623)

2700 GCCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTG
SnaBI (2751)

2800 GGCATAATGCCAGGCGGGCCATTACCCTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGAGTTACCCT
NdeI (2856)

2900 AAATACTCCACCCATTGACGTCAATGAAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGGGGGGTTCGTTGGGCGGTC

3000 AGCCAGGCGGGCCATTTACCCTAAGTTATGTAAC**GCTGCAGTTAA**TTAAGAA**CA**TGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAG
PstI (3035)
SdaI (3034)
PacI (3042)
BspLU11I (3052)

3098 CCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAG
SdaI (3034)
PacI (3042)
BspLU11I (3052)

3198 ATACCAGGCGTTTCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTG

3298 GCGCTTTTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTAGCCCGACCGCT
ApaLI (3366)

3398 GCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTA

3498 TGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTC

3598 GGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGAT

3698 CTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAA
PacI (3782)
SwaI (3791)

3798 ATC AGCGGCCGAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGA
EagI (3802)
NotI (3801)

3898 AACAAAACAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAAGTGCCAGGTCCAGAACATTTCTCTATCGAA