



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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGTGGCGCGGGTAAACTGGAAAGTGATGCTGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
HindIII (245) **EcoNI (287)**

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTGCCTGTTGCGCCCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
NgoMI (441)
NaeI (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCGTGACCCTGCTTGCTCAACTCTACGCTTTTGTTCGTTT

NcoI (560)
KasI (535)
BstEII (555) **AgeI (552)** **BsrBI (567)** **NruI (574)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCTACTCTGAGATCACCGGTACCATGGAGAGCGGTTTCGCGACCGTCGCTCGGCCAGGTCAT
1▶ M E S G S R P S L G Q V I

BstXI (611) **BstEII (621)**

601 CCTGTGGGCACCAAGTTCGATGGTACCGCCGTACTGTACTCCATATACCGGCAGAAAGGCCAGGTCGCGCAGGAAGTCAAGGGAGCTAAGAAGATTCAT
 13▶ L L G T S S M V T A V L Y S I Y R Q K A Q V A Q E L K G A K K I H
 701 CTGGTGAAGATTTAAAGGCATTCTTTTCAAGACCGGGGAAGTGTGTGCCTTACGCTGTATCGAAGGAGCTGTGCGGTCTGTTAAAGAACTCA
 47▶ L G E D L K G I L S E A P G K C V P Y A V I E G A V R S V K E T L
 801 ACAGCCAGTTCGTGGAAAAGTCAAGGGGGTATCCAGCGGCTGTCGCTTCAGGAGCATAAGATGGTGTGAAACCGAAGTACCCACCTTTGGAATGACTA
 80▶ N S Q F V E N C K G V I Q R L S L Q E H K M V W N R T T H L W N D Y
 901 TTCCAAGATCATTACAGGAGACTAACACTGTGCCCTTTGACCTCGTGCCACGAGGACGGCGTGGCTGTGTCGTCGCGAGTGTGAAGCCCTGGAT
 113▶ S K I I H Q R T N T V P F D L V P H E D G V A V S V R V L K P L D

XcmI (1074)
MscI (1071)

1001 TCAGTGGATCTGGCCCTAGAGACTGTGTACGAGAAGTTCACCCCTCTGTGCAGTCTTACCGATGCCATTGGCCACTACATCAGTGGCGAGAGGCCCA
 147▶ S V D L G L E T V Y E K F H P S V Q S F T D A I G H Y I S G E R P

PstI (1189)

1101 AAGGCATCCAGGAGACAGAGGAGATGCTGAAGTGGGAGCCACCTCACGGGATCGGTGAAGTGGTCTGGACAACAACGCTGTCCGCCTGCAGCCCC
 180▶ K G I Q E T E E M L K V G A T L T G I G E L V L D N N A V R L Q P P

ScaI (1214)
SphI (1208)

1201 CAAGCAGGGCATGCAGTACTACCTGAGCAGCCAGGACTTTGACAGCCTGCTGCACAGGAGGAGTCTAGTGTCCGGCTCTGGAAGTTTCTGGTCTGGTG
 213▶ K Q G M Q Y Y L S S Q D F D S L L H R Q E S S V R L W K V L V L V
 1301 TTCGGCTTTGCTACCTGTGCCACCTCTTCTTTCATCCTGAGGAAGCAGTACCTTATCGGCAGGAGCGCTGCGCCAGCAGCAGCTCCAGGAAGATTC
 247▶ F G F A T C A T L F F I L R K Q Y L H R Q E R L R Q Q Q L Q E E F

PvuII (1414)

1401 TTGAACACGAGGCCAGCTGCTGAGTCAAGCCTCGCCTGAGGACAGGGAGAGTCTGAAGAGCGCCTGTGTTGTGTCTGAGCAACTCAAGTCTGTGT
 280▶ L E H E A Q L L S Q A S P E D R E S L K S A C V V C L S N F K S C V

XhoI (1504)

1501 CTTCTCGAGTGCGGCATGTGTGTTCTGCCGCCAGTGTACCTTGCCCTTGCCAGAGCCCAAGAGGTGCCGATCTGTGCGGGGAGATCACCAGGGTG
 313▶ F L E C G H V C S C R Q C Y L A L P E P K R C P I C R R E I T R V

MscI (1648)
NheI (1642)

1601 ATACCCTTGATAACAGCTAGGGTCTGTGGTCACTGCAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAACCTAGAA
 347▶ I P L Y N S •

HpaI (1780) **MfeI (1791)**

1701 TGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTGCAT

EcoRI (1876)

1801 TCATTTTATGTTTCAGGTTACAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTCTAAAATACAGCATAGCAA
 1901 AACTTTAACCTCCAAATCAAGCCTCTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTGC
 2001 AGCCTCACCTTTTCATGGAGTTAAGATATAGTGTATTTTCCCAAGGTTTGAAGTACTGCTTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACA

SspI (2115) **SwaI (2129)**
EcoO109I (2190)

2101 TTCCCTTTTGTAGTAAATATTAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCA
 2201 TAATATCCCCAGTTTAGTGTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCGGTGTA
141▶ • N R T Y

SacI (2390)

2301 CTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAGCAGTCAAGGAGCATAGTCAAGATGAGCTCTCTG
 136▶ 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 E R

BstXI (2419)

2401 CACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGC
 102▶ 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 N S

2501 TCACAGCAGACCCCAATGGCAATGGCTTCAGCACAGACAGTGACCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCCCT
 69 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 T R

2601 GATGGCCGCCCGACATGGTGCTTGTTCCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAG
 36 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 N F

2701 GTCTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGATGGCGTCTCCAGCTT
 2 T K M

2801 ATCTGACGGTTCACATAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTG

2901 GAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCCAT

3000 TGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCCATAAAGTCACTGTACTGGGCATA

3100 ATGCCAGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATAC

3200 TCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTACTATGGGAACATACGTATTATTGACGTCAATGGGGGGGGTCTTTGGCGGTGACCCAG

3300 GCGGGCCATTTACCGTAAGTTATGTAACGCTG C A G G T T A A T T A A G A A C A T G T G A G C A A A A G G C C A G A A A G G C C A G G A A C C G T A A A A G G C C G C G T

3398 TGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCA

3498 GCGTTTTCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCGACCCCTGCCGTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGAAGCGTGGCGCTT

3598 TCTCATAGCTCACGCTGTAGGTATCTCAGTTCCGGTGTAGGTCGTTTCGCTCCAAGTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCT

3698 TATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGG

3798 CGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAA

3898 AGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAG

3998 AAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGC

4098 GGCCGCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAAACAAACGAAACAAA

4198 ACAAACTAGCAAAATAGGCTGTCCCAGTGAAGTGCAGGTGCCAGAACATTTCTCTATCGAA