



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

1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGACAGACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCCGCCGCCCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

KasI (535)
NcoI (560)

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

XcmI (614)
EcoO109I (667)

601 GCTCAGCTACAAATCCATCTGTTCTCTGGGCTGTGATCTGCCTCAGACCCACAGCCTGGGTAATAGGAGGGCCTTGATACTCCTGGCACAATGGGAAGA
 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

MscI (762)

701 ATCTCTCATTTCCTGCCTGAAGGACAGACATGATTTCCGATTCCCGAGGAGAGTTTGTATGGCCACCAAGTCCAGAAGGCTCAAGCCATCTCTGTCC
 47▶ I S H F S C L K D R H D F G F P E E E F D G H Q F Q K A Q A I S V

801 TCCATGAGATGATCCAGCAGACCTTCAATCTCTCAGCACAGAGGACTCATCTGCTGTTGGGAACAGAGCCTCTAGAAAAATTTCCACTGAACCTTA
 80▶ L H E M I Q Q T F N L F S T E D S S A A W E Q S L L E K F S T E L Y

XmnI (993)

901 CCAGCAACTGAATGACCTGGAAGCATGTGTGATACAGGAGTTGGGGTGAAGAGACTCCCCTGATGAATGAGGACTCCATCCTGGCTGTGAGGAAATAC
 113▶ Q Q L N D L E A C V I Q E V G V E E T P L M N E D S I L A V R K Y

BspHI (1073)

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

MscI (1148)

1101 ACTTGCAAAAAAGATTAAGGAGGAAGGATTGAAACCTGGTTCGCTAGTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAA
 180▶ N L Q K R L R R K D •

HpaI (1280) **MfeI (1291)**

1201 TGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTGCAT

EcoRI (1376)

1301 TCATTTTATGTTTCAGGTTACAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGGTATGGAATCTAAATACAGCATAGCAA
 1401 AACTTAACCTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGC

SapI (1558)

1501 AGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGATTTTCCCAAGGTTTGAACAGTCTTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACA

SspI (1615)
Swal (1629) **EcoO109I (1690)**

1601 TTCCCTTTTATGATAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTATTAGGAGAATCCAGATGCTCAAGGCCCTTCA
 1701 TAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTTCTGGTGTGA
141▶ • N R T Y

SacI (1890)

1801 CTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTG
 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 (1919)

1901 CACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGC
 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

StuI (2054)

2001 TCACAGCAGACCAATGGCAATGGCTTACAGCACAGACAGTGCCTGCCAATGTAGCCCTCAATGTGGACAGCAGAGATGATCTCCCAAGTCTTGGTCTC
 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

XmnI (2196)

2101 GATGGCCGCCCCGACATGGTCTTGTCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAG
 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

BbsI (2200)
AseI (2262)

2201 GTCTTCATGTTGGCCCTCTATAGTGAGTCGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTT
 2▶ T K M

SacI (2319)

2301 ATCTGACGGTTCATAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTG

SpeI (2417)

2401 GAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATT

2501 GATG TACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAGGTCATGTACTGGGCATAA
SnaBI (2545)

2601 TGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACT
NdeI (2650)

2701 CCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGG

2801 CGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGC
PacI (2836) PstI (2829) SdaI (2828) BspLU11I (2846)

2901 TGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGC

3001 GTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCT

3101 CATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCCGCTGCGCCTTAT
ApaLI (3160)

3201 CCGGTAAC TATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGG

3301 TGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGA

3401 GTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTTCGAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAG

3501 ATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAAAAC TACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGC
PacI (3576) SmaI (3585) EagI (3596) NotI (3595)

3601 CGCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACA

3701 AACTAGCAAATAGGCTGTCCCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA