



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

1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCGCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

BspLU11I (560)

501 TCTGTTCTGCGCGGTTACAGATCCAAGCTGTGACCGCGGCTACCTGAGATCACCGGTCAACATGTACAGGATGCAACTCCTGTCTTGCATTGCACTAAG
 1▶ M Y R M Q L L S C I A L S

EcoRI (615)

601 TCTTGCATTGTACGCAATCTGCGGTTTCCAGGGTCCAGAAGAAACAGTCACTCAAGACTGCTTGCACACTGATTGCAGACAGTGAACACCAACTATACAA
 13▶ L A L V T N S A V Q G P E E T V T Q D C L Q L I A D S E T P T I Q

NcoI (721)
SspI (774)

701 AAAGGATCTTACACATTTGTTCCATGGCTTCTCAGCTTTAAAAGGGGAAGTGCCTAGAAGAAAAAGAGAATAAAAATATTGGTCAAAGAACTGGTTACT
 47▶ K G S Y T F V P W L L S F K R G S A L E E K E N K I L V K E T G Y

NcoI (842)
BstXI (873)

801 TTTTATATATGGTCAGGTTTTATATACTGATAAGACCTACGCCATGGGACATCTAATTAGAGGAAGAAGGTCATGTCTTTGGGGATGAATTGAGTCT
 80▶ F F I Y G Q V L Y T D K T Y A M G H L I Q R K K V H V F G D E L S L

PvuII (962)

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

MscI (1087)

1001 CAACTTGCATACCAAGAGAAAAATGCACAAATATCACTGGATGGAGATGTACATTTTTTGGTGCATTGAAACTGCTGTGAGCTAGCTGGCCAGACATGA
 147▶ Q L A I P R E N A Q I S L D G D V T F F G A L K L L •

1101 TAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCAT

HpaI (1219)
MfeI (1230)

1201 TATAAGCTGCAATAAACAAGTTAAACAACAACAATTGCATTCATTTTATGTTTCAGGTTACAGGGGAGGTGTGGGAGTTTTTTAAAGCAAGTAAACCTC

EcoRI (1315)

1301 TACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAAAACCTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATA

SapI (1497)

1401 GGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTTCATGGAGTTTAAAGATATAGTATTTTCCCAAGTTTGAAGTAGCT

SspI (1554)
SwaI (1568)

1501 CTTCAATTTCTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATG

EcoO109I (1629)

1601 TTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGA

1701 CAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATGAGC
 141▶ N R T Y K L P I L E E I T T K V L K G N M E I L

SacI (1829)
BstXI (1858)

1801 ACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCC
 115▶ V F C D P A Y D S I L E R C M G C P S V V R I S R D V E D S Y P H R

StuI (1993)

1901 TGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCTC
 82▶ V A V I T D F D K Q G N S V A S G I A I A E A C V T V R G I Y A E

2001 AATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGCTTGTGCTCATAGAGCATGGTATCTTCTCAGTGGCG
 49▶ I H V A S I I E G T K T R I A A G V H H K N D E Y L M T I K E T A

BbsI (2139)

2101 ACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCTATAGTGAGTCGATTATACTATGCCGATATACTATGCCGAT
 15▶ V E V L E L D Q Q S I N F T K M

AseI (2201)
SacI (2258)

2201 GATTAATTGTCAAACACAGCTGGATGGCGTCTCCAGCTTATCTGACGGTTCACATAACAGACTCTGCTTATATAGACCTCCACCGTACACGCCCTACCGC

SpeI (2356)

2301 CCATTTGCGTCAATGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCAATGGGGTGGAGACT

SnaBI (2484)

2401 TGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGC

2501 CAAGTAGGAAAGTCCATAAAGTTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACA **NdeI (2589)**
 2601 CTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTAT
 2701 TGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAAGTTATGTAACGCCTGCAGGTTAATTAAGAACATGTGAGCAAAG **PacI (2775)**
 2801 GCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCA **PstI (2768)**
 2901 GAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTCCGACCCTGCCGTTACCGGATAC **SdaI (2767)** **BspLU11I (2785)**
 3001 CTGTCCGCTTTTCTCCCTTCGGGAAGCGTGGCGCTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTG **ApaLI**
 3101 TGCACGAACCCCCGTTCCAGCCGACCGCTGCGCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGC
 3201 CACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGT
 3301 ATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTGTGTTGCA
 3401 AGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGAT
 3501 TTTGGTCATGGCTAGTTAATTAACATTTAAATC **EagI (3535)** **NotI (3534)**
 3601 TAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA **PacI (3515)** **SwaI (3524)**