



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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCCGCCCGCCCTACCTGAGGCC
 301 GCCATCCACGCCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMI (441)
NaeI (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

NcoI (560)
BstEII (555)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCCTACCTGAGATCACCGGTCACCATGGTGAATGAATAACAAGAAAATCTTTTGTGAAAGG
 1▶ M V N E Y K K I L L L K G

BsiBI (613)
XbaI (744) **HpaI (796)**

601 ATTTGAGCTCATGGATGATTATCATTTTACATCAATTAAGTCCTTACTGGCCTATGATTTAGGACTAACTACAAAAATGCAAGAGGAATACAACAGAATT
 13▶ F E L M D D Y H F T S I K S L L A Y D L G L T T K M Q E E Y N R I
 701 AAGATTACAGATTTGATGAAAAAAGTTCCAAGGCGTTGCCTGTCTAGACAAAATAAGAACTTGCCAAAGATATGCCATCACTTAAAACTTTGTTA
 47▶ K I T D L M E K K F Q G V A C L D K L I E L A K D M P S L K N L V

BstBI (806)
AsuII (806)

801 ACAATCTTCGAAAAGAGAAGTCAAAAAGTTGCTAAGAAAATTAACACAAAGAAAAGTCCAGTGAIAAAAATTAACAGGAAGAAGTGGGTCTTGGCGC
 80▶ N N L R K E K S K V A K K I K T Q E K A P V K K I N Q E E V G L A A
 901 ACCTGCACCACCGCAAGAAACAACTGACATCGGAAGCAAGAGGGAGGATTCCTGTAGCTCAGAAAAGAAAATCCAAACAAAGAAAAGACTGAAGCC
 113▶ P A P T A R N K L T S E A R G R I P V A Q K R K T P N K E K T E A

Bsu36I (1043) **PstI (1061)**

1001 AAAAGGAATAAGGTGTCCCAAGAGCAGAGTAAGCCCCAGGTCCTCAGGAGCCAGCACATCTGCAGCTGTGGATCATCCCCACTACCCAGACCTCAT
 147▶ K R N K V S Q E Q S K P P G P S G A S T S A A V D H P P L P Q T S
 1101 CATCAACTCCATCCAACACTTCGTTTACTCCGAATCAGGAAACCCAGGCCAACGGCAGGTGGATGCAAGAAGAAATGTTCCCAAAACGACCCAGTGC
 180▶ S S T P S N T S F T P N Q E T Q A Q R Q V D A R R N V P Q N D P V T

MscI (1280) **SspI (1295)**

1201 AGTGGTGGTACTGAAAGCAACAGCGCCATTTAAATACGAGTCCCAGAAAATGGGAAAAGCACAATGTTTCATGCTACAGTGGCCAGTAAAGACTCAATAT
 213▶ V V V L K A T A P F K Y E S P E N G K S T M F H A T V A S K T Q Y

XmnI (1308)

1301 TTCCATGTGAAAGTCTTCGACATCAACTGAAAGAGAAAATTTGTAAGGAAGAAGGTCATTACCATATCTGATTACTCTGAATGTAAGGAGTAATGGAAA
 247▶ F H V K V F D I N L K E K F V R K K V I T I S D Y S E C K G V M E
 1401 TAAAGGAAGCATCATCTGTGTCTGACTTAAATCAAAAATTTGAGGTCCCAAACAGAATTATCGAAATAGCAAATAAACTCCCAAGATCAGTCAACTTTA
 280▶ I K E A S S V S D F N Q N F E V P N R I I E I A N K T P K I S Q L Y

BamHI (1597)

1501 CAAGCAAGCATCTGGAACAATGGTGTATGGGTTGTTTATGTTACAAAAGAAAAGCGTACACAAGAAGAACAATTTATGAAATACAGGATAATACAGGA
 313▶ K Q A S G T M V Y G L F M L Q K K S V H K K N T I Y E I Q D N T G

XcmI (1601)
NcoI (1601)

1601 TCCATGGATGTAGTGGGGAGTGGAAAATGGCACAATATCAAGTGTGAGAAAGGAGATAAACTTCGACTCTTCTGCCTTCAACTGAGAACAGTTGACCGCA
 347▶ S M D V V G S G K W H N I K C E K G D K L R L F C L Q L R T V D R
 1701 AGCTGAAACTGGTGTGTGGAAGTACAGCTTCAAGGTCATCAAGGCCAAGAAAACAAGGAAGGACCAATGAATGTTAATTGAAATATGAAAGCTGA
 380▶ K L K L V C G S H S F I K V I K A K K N K E G P M N V N •

MscI (1820)
NheI (1814)

1801 AATGCAACAAACAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAAGTGAATGCAAGTGAIAAAAATGCTTTATTGTGA

HpaI (1952) **MfeI (1963)**

1901 AATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAACAAGTTAACAAACAACAATTGCATTCATTTATGTTTCAGGTTCCAGGGGAG

EcoRI (2048)

2001 GTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTCAAAATACAGCATAGCAAACTTTAACTCCAAATCAAGCCTCTAC
 2101 TTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTCATGGAGTTTAA

SspI (2287)

2201 ATATAGTGTATTTTCCCAAGGTTTGAAGTACTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTATGATAAAATATTGAGAAT
 2301 AATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTATAATATCCCCAGTTTAGTAGTTGGACT
 2401 TAGGGAACAAAGGAACCTTTAATAGAAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTG
 141▶ • N R T Y K L P I L E E I T

2501 GTTTTGACCAGCTTGCCATTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGA
126 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 M G C P S V V R I
2601 TGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCCTTCTGCCCGTTGCTCACAGCAGACCAATGGCAATGGCTTC
93 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 A S G I A I A E

StuI (2726)
Eco147I (2726)

2701 AGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCGACATGGTCTTGTG
60 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 A A G V H H K N

BspHI (2876)
XmnI (2868)

2801 TCCTCATAGAGCATGGTGTATCTTCTCAGTGGGACCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGGCTTTCATGATGGCCCTCTATAGTGAG
26 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 K M

VspI (2934)
AseI (2934)

2901 TCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAA AACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCCTAAACGAGCTCTGC

SpeI (3089)

3001 TTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAA
3100 ACAAACCTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCAT

SnaBI (3217)
Eco105I (3217)

3200 GGTAATAGCGATGACTAATACGTAGATGTA CTGCAAGTAGGAAAGTCCATAAGGTCATGTA CTGGGATAATGCCAGGCGGGCCATTTACCGTCATTG

NdeI (3322)

3300 ACGTCAATAGGGGCGTACTTGGCATATGATACTTGTACTGTA CTGCAAGTGGGCGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCC
3400 CTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCTGTTGGGCGGT CAGCCAGGCGGGCCATTTACCGTAAGTTATGTAAC

PstI (3501)
SdaI (3500) PacI (3508) BspLU11I (3518)

3500 GCCTGCAGGTTAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGCCAGGAACCGTAAAAAGGCCGCTTGTGCGTTTTTCCATAGGCTCCGCC
3598 CCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTG
3698 CGCTCTCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCAGCTGTAGGTATCTCA

ApaLI (3832)

3798 GTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTAGCCCGACCGCTGCGCTTATCCGGTAACTATCGTCTTGAGTCCAA
3898 CCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGG
3998 CCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAC
4098 AAACCACCGCTGGTAGCGGTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTC

EagI (4268)
PacI (4248) NotI (4267)

4198 TGACGCTCAGTGGAACGAAAACCTACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCCAATAAAATATCTTTATTTTCAT
4298 TACATCTGTGTGTTGGTTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAG
4398 TGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA